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Guest Editorial

Veterans Administration

THE shortcomings of the Veterans Administration as it relates to medical and surgical treatment of disabled veterans have to a certain extent been exposed by Deutsch in *Medical Economics*, Maisel in *Readers Digest*, and others. Some remedies have been advised such as elimination of most of the paper work, the appointment of an outstanding medical man as top authority (he should not be over 55, senility has been pointed out as one of the defects of present staff), adequate pay to attract men of ability.

Now, how are the staffs of the various facilities to be rejuvenated, kept alert, and informed? By reading medical literature and attending post-graduate courses? No! that will not work! I suggest a visiting staff selected by the faculty of the nearest medical college made up of key men in the various departments such as medicine, surgery, orthopedics and psychiatry, each chief to be accompanied by a resident, or equivalent, actually to oversee or carry out staff orders, while staff remains at the Facility. Visiting staff should consist of not less than eight men—should remain on duty at Facility not less than two weeks. They are to consult with the permanent staff, but the opinions and directives of the visiting staff will be put in effect. This setup will have the effect of a refresher course applied on spot.

Also, and not the least important, the visiting staff and not political overlords shall determine, from performance, just who shall be promoted and just who shall be retired. These staff visits should be made not less than twice a year. I believe that the medical colleges will cooperate in such a plan by granting leave to such staff men for the performance of this essential service to our disabled veterans. They are entitled to the best and under the present system are not getting it. Only by continuing contact with teaching staffs of our outstanding medical colleges can the permanent staffs be kept abreast the progressive march of medical science. I am not suggesting that colleges "lend lease" these staff men to the government but that they be compensated adequately.

W. WALLACE GILL, M.D.

EDITOR'S NOTE: Dr. Gill, an outstanding physician of Richmond, is a veteran of World War I, and consequently has a double interest in the Veterans Administration.

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GENERAL USES OF PENICILLIN IN OTOLARYNGOLOGY*†

FLETCHER D. WOODWARD, M.D.,
Charlottesville, Virginia.

The use of penicillin is rapidly becoming more widespread as increasing supplies are being produced by the various pharmaceutical manufacturers. Because of this rapid increase in the employment of this new drug, and the rather limited experience of any individual in its use, I am reporting our experience in the treatment of a group of 59 patients, with the hope that it may be of some value to those who have yet been unable to secure this drug for any purpose other than for the treatment of desperately ill patients. As experience accumulates I believe many new uses will be found, and many new methods for its application will be developed. At present, old and time-proven drugs and surgical procedures are adequate to handle most infections, and the ease of administration and efficacy of the newer sulfonamides make the use of penicillin unnecessary in most instances. However, in those infections in which these procedures are inadequate, the value of penicillin becomes apparent.

Fortunately, the great majority of acute infections with which otolaryngologists have to deal are susceptible to the sulfonamides, but penicillin is more effective, and at the same time is useful in a larger group of bacteria, as well as for many bacteria which have become resistant to the sulfonamides. It is also effective under certain conditions, such as in the presence of pus, and is practically free of toxic and allergic reactions. The difficulty of administration furnishes the main objection to its use today.

The local application of penicillin has been limited in our work to the treatment of chronic purulent otitis media and to its use in the ear after radical mastoidectomy. In each instance we have used a solution of 500 units per c.c. This solution is so prepared that when two drops are placed in the ear every two hours, during the average waking period, the solution will last approximately seven days. Beyond this period the drug becomes ineffective because of deterioration.

Fifteen cases of chronic purulent otitis media were selected because they had resisted all other forms of treatment, had been present many years, and the odor was quite objectionable. The results in these 15 cases were encouraging: 8 ears became dry; the odor disappeared in 11; 4 were improved; and 3 were unimproved. Of these 3, 2 were subsequently given one million units intramuscularly, with the result that one became dry, but the other case was unimproved.

A study of this group seems to indicate that the best results are in those cases in which there is a large perforation, without cholesteatoma or advanced osteitis; in other words, unless the drug can reach the diseased area, it cannot be effective. The marked effect on the odor, although difficult to explain, was most gratifying. No bad results were noted other than the strange development of a diffuse external otitis in 3 cases, during the administration of the drug. This condition promptly responded to wet boric acid packs, after the medication with the penicillin solution was discontinued. One patient had an associated erysipelas which did not react to local treatment. This condition cleared rapidly under the systemic use of sulfadiazine, so penicillin was not used intramuscularly.

The cultures from chronic otitis cases usually show a mixed group of bacteria, with the Colon group, Proteus, Diphtheroids, and other penicillin-resistant organisms predominating, which Is in contrast to those cultures of acute infections in which Streptococci, Staphylococci, and Pneumococci predominate and are susceptible to penicillin. For this reason, one cannot hope for any dramatic results in the local treatment of chronic otitis, except in certain cases in which both the bacterial and mechanical factors are favorable. Since the odor in these cases is usually due to penicillin-resistant organisms, it is difficult to explain its disappearance in such a large group. Further study of this gratifying result will be necessary.

The same local procedure was used post-operatively in the tympanic cavities of 12 radical mastoidectomies, after the initial packing had been removed. It was uniformly successful in 10 instances, and no doubt contributed to prompt healing and

*Read before the Southern Section of the American Laryngological, Rhinological and Otological Society, Charlotte, N. C., January 15, 1945.

†From the Department of Otolaryngology, University of Virginia Hospital, Charlottesville, Va.

epitheliazation of the cavities. Again, in 2 cases it set up a diffuse external otitis, and its application had to be discontinued. Further investigation of this phenomenon might reveal that we were dealing with penicillin-resistant organisms whose activity was encouraged by the wet medicine and the destruction of those which were susceptible.

Penicillin was used systemically in 4 cases of otitic complications, as follows:

A sixty year old woman was admitted who had had pneumonia 2 months previously and was given sulfadiazine for 2 weeks. One ear had discharged constantly for one month, and on admission a frank mastoiditis was present. Cultures from the ear and urine showed pneumococcus, Type III. A simple mastoidectomy was done and she was placed on sulfamerazine. In spite of this she had a chill and high temperature 2 days later, and the blood culture showed large numbers of Type III pneumococci. The sulfamerazine was discontinued on the third day, and 15,000 units of penicillin were given intramuscularly every 3 hours. The temperature was normal in 3 days. She was treated for 6 days and one million units were given. Recovery was uneventful.

The second case was that of a 15 year old girl, admitted in delirium. The history was that she had an upper respiratory infection 2 weeks before, folfowed in 3 days with meningitis. She was given sulfathiazole by mouth, and did well for 8 days. She then became much worse and was brought to the hospital. Both blood and spinal fluid cultures were positive for pneumococci, Type III. She was placed on sulfadiazine and her blood level maintained at 20 mg. per 100 c.c. 160,000 units of Type III anti-pneumococcal rabbit serum were given in the first 2 days. Her blood culture was negative on the third day. But spinal fluid culture was still positive, so 10,000 units of penicillin were given intrathecally every day for 13 days, and 10,000 units were given intramuscularly every 3 hours. Both temperature and spinal fluid were normal in 2 days after institution of treatment with penicillin. A total of one million units was given. Recovery was uninterrupted. On admission to the hospital she had an acute otitis media, which promptly cleared, so we assumed that the meningitis was otitic in origin.

A third case of otitic meningitis, due to Type III pneumococcus, was similarly treated, and recovery was uneventful.

The fourth case was one of chronic mastoiditis and septicemia from phlebitis of the sigmoid sinus. The organism was B. proteus. No response was obtained from either sulfadiazine or penicillin. Prompt and extensive surgery served to clear this infection, and the patient recovered after a long convalescence complicated by a metastatic lung abscess.

There were 2 cases of marked cellulitis of the face, following the extraction of upper molar teeth. The infection was due to S. viridans, and recovery was slow but complete, following incision and drainage and penicillin. One case was treated intravenously as well as intramuscularly. Two other cases of cellulitis of the neck and lower jaw followed the extraction of lower molar teeth. One was due to an anærobic streptococcus, and the other to the staphylococcus aureus hemolyticus and nonhemolyticus. Both made prompt recovery, and were treated by both the intravenous and intramuscular routes. Approximately 800,000 units were given in each instance.

Penicillin has not been used locally in nasal sinus or pulmonary infections. We have contemplated its use in maxillary sinus infections, by local injection after lavage through the natural ostia; but since most of these cases clear so well under the older methods of therapy, it has not yet been employed.

Three cases of nasal furunculosis and facial cellulitis, due to the staphylococcus aureus, have been treated systemically. All made a prompt and uneventful recovery. A fourth case developed phlebitis and thrombosis of the cavernous sinus on one side and also recovered. Intravenous drip and intramuscular routes were used.

Four cases of severe acute sinus infections have been treated systemically with good results.

The first, a month old infant, with an acute maxillary sinusitis, osteomyelitis of the anterior wall, and facial cellulitis due to the staphylococcus aureus, was given one million units of penicillin, both intravenously and intramuscularly. The aspiration of 15 c.c. of pus from a cheek abscess and incision and drainage of a metastatic osteomyelitis of the femur, were the only surgical procedures done. Approximately one month later the face and sinuses were well healed, and roentgenograms of the femur showed progressive repair of the pathological fracture in the femur.

The second case was that of a boy twelve years

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of age who had an acute frontal sinusitis and spreading osteomyelitis of the skull, due to the staphylococcus aureus hemolyticus. The process was entirely arrested under penicillin given intramuscularly. The sinuses healed without surgical intervention, but a sequestrectomy of a part of the frontal bone was subsequently carried out. Recovery was uneventful.

The third case was an adult who had an acute pansinusitis, due to the hemolytic streptococcus, associated with chills and a high septic type of temperature. Repeated blood cultures were negative. There was no response to lavage of the maxillary sinuses and sulfadiazine; but one million units of penicillin, given intramuscularly, brought about a slow but steady recovery. This was the only patient in our series who manifested a toxic or rather allergic reaction to penicillin. He had a rather severe, urticarial-like skin eruption and marked conjunctivitis. These soon cleared when the administration of the drug was discontinued. This allergic reaction might be due to one's sensitization to the spores of penicillin notatum which is not uncommon in the air.

The fourth case was that of a patient who had a chronic sinusitis and bronchiectasis, who was admitted with an acute respiratory infection and high temperature. This patient improved rapidly and temperature was normal in 4 days. The chronic manifestation of cough and sputum was likewise improved, approximately 75 per cent.

One severe complication of nasal origin was treated, a meningitis due to the pneumococcus Type III, which followed a routine submucous resection. The meningeal infection was assumed to have arisen as a result of the operative trauma in the presence of the particular organism, since the operative work was limited to the lower septum, in order to restore an airway. The possibility of fracture through the cribriform plate was remote in this instance.

Among the group of chronic infections of the sinuses, the results of adequate treatment were discouraging. One patient with chronic purulent frontal sinusitis showed no improvement. Two with chronic sinusitis and bronchiectasis showed no improvement. Four patients with advanced nasal allergic degeneration, sinusitis, asthma, and bronchiectasis showed no or negligible improvement.

The cultures in these patients were mixed, staphylococcus aureus, streptococci, S. viridans predominating.

The results in three cases of lung abscess were most encouraging. The first, an elderly man with an early abscess of the right upper lobe, cleared rapidly under bronchoscopic aspiration and penicillin given intramuscularly. The second case required external surgical drainage, and the third, a lobectomy. Both had a smooth post-operative convalescence under penicillin therapy.

We have a final group of five miscellaneous cases. The results were as follows: One: Meningococcic meningitis, well and discharged in 17 days. Two: Oculo-glandular tularemia, no result from therapy. Three: Tracheobronchitis following removal of a peanut from the lung, and tracheotomy complicated by bilateral pneumothorax; recovery in four days. Four: Subacute thyroiditis, no result from therapy. Five: Actinomycosis jaw, improved.

In conclusion, we feel that the local use of penicillin in chronic otitis media will be effective in certain selected cases only. In post-operative mastoid wounds, it is of real value. In the treatment of chronic sinusitis and bronchiectasis, it is of no or negligible value when given systemically; and, although we have not used it locally, I doubt that it will be of any real benefit.

For the treatment of acute infections and complications arising from infection in the respiratory tract, it is of real value, and the results are often dramatic. However, it must be remembered that it is only useful to those types of infection which are susceptible to the drug, and that many of these can be treated just as successfully with the sulfonamides and other older methods of therapy.

104 East Market Street.

SOME LONG SHOT CASES OF CANCER THAT RECOVERED*

J. SHELTON HORSLEY, M.D.,
Richmond, Virginia.

The problem of cancer is one of the most important that affects the health of the human race. Each year there are more than 160,000 deaths from cancer in the United States alone. This is more than double the number of deaths that occurred from cancer thirty years ago.

Cancer is doubtless more beset by superstition and prejudice than any other disease. The fallacious statement that we do not know what causes cancer and, consequently, can do nothing about its cure is disastrous. Ascertaining the cause of a disease may or may not effect its therapy. The present methods of treating cancer are quite satisfactory if the diagnosis is made early and the proper treatment is then applied.

There are many types of cancer, just as there are many types of acute infectious diseases, and the kind of cancer, its location and extent should determine the treatment. In some instances, radiation, either from radium or x-ray, is the best treatment, and in other cases surgical operation is preferable. Sometimes a combination of these gives the best results. In cancer of the breast or prostate regulation of the secretion of the gonads is indicated. It is just as important to give the correct dosage and application of x-ray as it is to carry out correctly the technic of an operation, and only roentgenologists well trained in this therapy can get the best results. If an early diagnosis is made and proper treatment applied, the great majority of cancers can be cured. It is when the disease has lasted a long time and has become extensive that treatment often fails. But all of the late cases are not necessarily hopeless. The earlier the diagnosis is made, the more difficult it is. Not infrequently, as in tumors of the breast or face, the correct diagnosis cannot be made in the early stages without a biopsy. If healthy tissue must be incised before reaching the tumor, as in the breast, a radical operation should be done at once if cancer is found. Otherwise, the malignant cells may invade the incised normal tissue.

No effort has been made in this paper for a statistical study of these cases. Naturally in far advanced cancer the deaths far out-number the cures. The object of this paper is to show that in some instances what appear to be hopeless cases may be cured or at least benefited, though of course this should not be taken as an excuse to delay operation or proper treatment in early cases.

*Read before the Richmond Academy of Medicine, Tuesday, February 27, 1945.

CANCER OF THE BREAST

These three cases of cancer of the breast are reported because, in each of them, there had been an incomplete operation with partial excision or biopsy some time preceding the radical operation. It is well known that such cases offer a very poor prognosis for cure, especially in younger patients.

Case 1.—Mrs. C. B. A., age 33 years, had noticed a small lump in the left breast in January, 1937. Her mother died of nephritis and carcinoma of the left eye. On June 11, 1937, a left local mammectomy had been done elsewhere. Microscopic examination showed cancer. She then had thirty roentgen-ray treatments over the region of the left breast and axilla. Six weeks after these treatments she noticed a small lump in the left axilla and was given fifteen more roentgen-ray treatments, but the lump remained. Examination on admission to St. Elizabeth's Hospital, November 18, 1937, showed the skin over the left thorax and left axilla brown from the roentgen-ray treatments and there were palpable lymph nodes in the left axilla. On November 19, 1937, a radical operation for recurrent carcinoma of the left mammary gland and bilateral oophorectomy were performed. This was the first case in which this combined operation was performed. Microscopic examination of the axillary lymph nodes showed adenocarcinoma, grade 4. In some cells there was evidence of the effect of irradiation, but in most areas the cancer cells did not seem to be affected. The patient was well, with no recurrence, on February 5, 1945, more than seven years and two months after operation. She appears to be in perfect health.

Case 2.—Mrs. R. P. H., age 42 years, was admitted to St. Elizabeth's Hospital August 10, 1940. Three weeks before admission the patient had noticed a small, hard, painless mass in the upper outer

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quadrant of the left mammary gland. One week before admission the tumor had been removed elsewhere and microscopic examination showed cancer. She was otherwise in good condition. On August 10, 1940, a radical operation for carcinoma of the left mammary gland and bilateral oophorectomy were performed. Microscopic examination showed adenocarcinoma, grade 3 plus. The lymph nodes in the axilla were hyperplastic, but apparently not cancerous. This patient was in good health and had no recurrence when last heard from on February 5, 1945, four years and six months after operation.

Fig. 1.—Mrs. R. H. B. Anterior view of specimen from partial gastrectomy and resection of the transverse colon. The tumor involves the pyloric portion of the stomach at the greater curvature and the adjacent mesentery of the transverse colon. (From Some Atypical Cases of Malignancy of the Stomach, J. Shelton Horsley, *The Southern Surgeon*, 4:227-239, August, 1935).

Case 3.—Mrs. A. D. W., age 38 years, was admitted to St. Elizabeth's Hospital on February 3, 1941. Her mother died of cancer of the ovary. In June, 1940, a small tumor was removed from the patient's left breast elsewhere. Two months before admission to St. Elizabeth's Hospital she noticed another small tumor just lateral to the old incision. There had been infrequent sharp pains. On admission there was a scar in the upper outer quadrant of the left breast and near it were four firm, round tumors. There were no palpable lymph nodes in the axilla. February 5, 1941, a radical operation for carcinoma of the left mammary gland was performed with bilateral oophorectomy. Microscopic examination showed cancer, grade 3. A report from the patient on February 5, 1945, four years after

operation, stated there has been no recurrence and she is in excellent health.

These three cases have been previously reported (Horsley, J. Shelton: "Bilateral Oophorectomy with Radical Operation for Cancer of the Breast", *Surgery*, Vol. 15, No. 4, pp. 590-601, April, 1944), but they have been followed up and at a further interval of nearly a year since the first report was made these

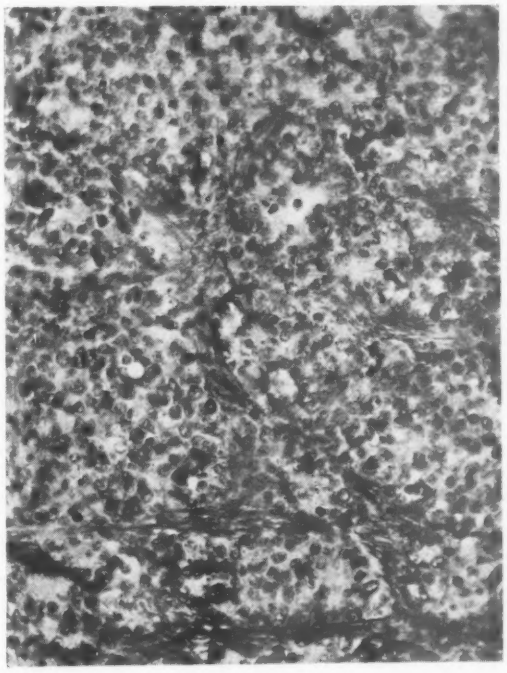

Fig. 2.—Photomicrograph from cancer of the stomach shown in the preceding illustration. The growth is quite cellular and appears to be active with many mitotic figures. It may be classed at least as grade 3. (Reduced from X 200).

patients are still well. Heretofore, such cases in my own experience have almost invariably had recurrences.

The notable feature about these three cases is that at the radical operation, both ovaries were removed. The estrogen secretion of the ovaries stimulates mammary cancer. Experimentally, cancer of the breast can be reproduced in rats and mice by excessive doses of estrogen given over a period of a few weeks. While clinically this has not been absolutely proved, several instances have been reported of probable development of cancer of the breast in women from the administration of estrogen products. It would seem, then, that many recurrences after a radical operation for cancer of the breast are from cancer cells that were left behind when the operation was

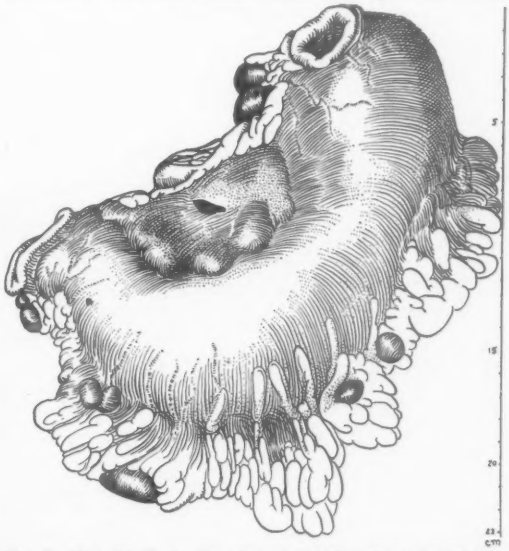

Fig. 3.—Mrs. W. B. L. Drawing of anterior view of total gastrectomy. The lesser curvature shows an area with involvement of the pancreas. There are enlarged lymph nodes along the lower border. (From Three Successful Cases of Total Gastrectomy by J. Shelton Horsley, *Virginia Medical Monthly*, 70:549-553, November, 1943).

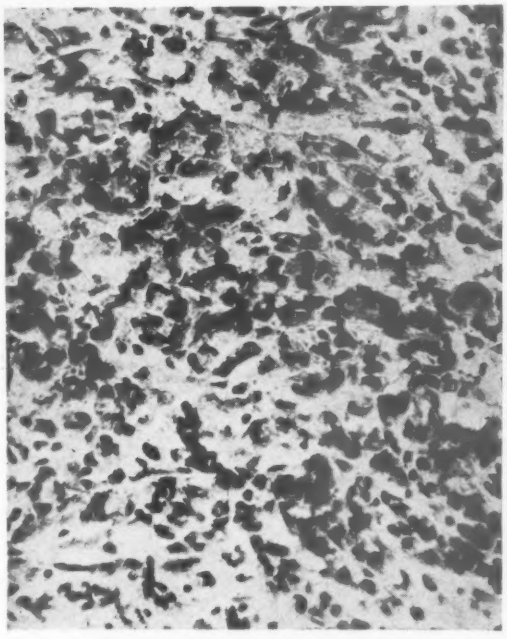

Fig. 4.—Photomicrograph of cancer shown in Figure 3. There is a moderate amount of colloid and many of the cells have eccentric nuclei. (Reduced from X 350). (From *Virginia Medical Monthly*, 70: 549-553, November, 1943).

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done, and if the stimulating effect of estrogen products can be entirely removed at the time of the radical operation these cells may perish. This does not in any way extend the indications for a radical operation for cancer of the breast, because if any demonstrable metastases are found that would ordinarily

Fig. 5.—Roentgenogram taken 22 days after the operation. There is ample opening between the esophagus and the jejunum.

contra-indicate a radical operation, removal of the estrogen products would probably not be effective.

Loeb and his colleagues (Loeb, Leo, Blumenthal, H. T., and Kirtz, Marian Moskop: "The Effectiveness of Ovarian and Hypophysial Grafts in the Production of Mammary Carcinoma in Mice, *Science,* 99: 230-232, March 24, 1944) have shown that mammary cancer, after reaching a certain stage of development, may be capable of growing under its own metabolism independently of estrogen. This appears to be particularly true when metastases in lymph nodes are left, because here the cancer cells seem to some extent protected from the influence of estrogen that circulates in the blood. However, a few isolated cancer cells in the subcutaneous or deep tissues may depend upon estrogen products for survival.

Of the 160,000 deaths from cancer every year it is estimated that about 15,000 are from cancer of the breast. An early radical operation with excision of both ovaries in premenopausal cases would probably cut this death rate in half.

CANCER OF THE STOMACH

Cancer of the stomach is estimated to be responsible for more deaths than cancer of any other organ. One reason for this is the absence of symptoms in the early stage. Unfortunately, early cancer rarely causes pain or other symptoms and when they are present frequently the disease is far advanced.

This patient, Mrs. R. H. B., has been previously reported in 1935 (Horsley, J. Shelton: "Some Atypical Cases of Malignancy of the Stomach", *Southern Surgeon,* Aug., 1935, Vol. 4, pp. 227-239), but a follow up shows that at present, almost 11 years since the partial gastrectomy, she is well and without recurrence.

Case 4.—Mrs. R. H. B., age 67 years, entered the hospital December 5, 1933, complaining of shortness of breath and loss of appetite of one month's duration. She had had no pain, diarrhea, constipation or bloody stools, but had had slight intestinal gas. There was a mass in the right abdomen on a level with the umbilicus. X-ray examination revealed a fairly movable stomach on the greater curvature of which near the pylorus was a gross defect that was believed to be due to cancer. Gastric analysis before admission showed no free hydrochloric acid, 10 combined acid in fasting specimen, 22 in 30-minute specimen, 6 in 45-minute specimen, and 20 in 60-minute specimen. She was operated upon December 15, 1933. The stomach was adherent to a mass which was incised and drained foul, rather thick, light yellowish pus.

She left the hospital January 12, 1934, and for about five weeks she felt better and had a good appetite, but a month before readmission she gradually

became weaker, with frequent abdominal distention, eructation of gas, loss of appetite, nausea, and the passage of very dark-colored stools. There was a mass, not tender on pressure, at the site of the previous abscess. X-ray examination showed a filling defect in the stomach. At operation on March 24, 1934, a partial gastrectomy was done with resection before this Academy and published in the VIRGINIA MEDICAL MONTHLY in November, 1943.

Case 5.—Mrs. W. B. L., age 50 years, of Bedford, Virginia, was admitted to St. Elizabeth's Hospital May 24, 1943. She gave a history of having had "stomach trouble" for twelve months during which time she had lost 25 pounds in weight. She had

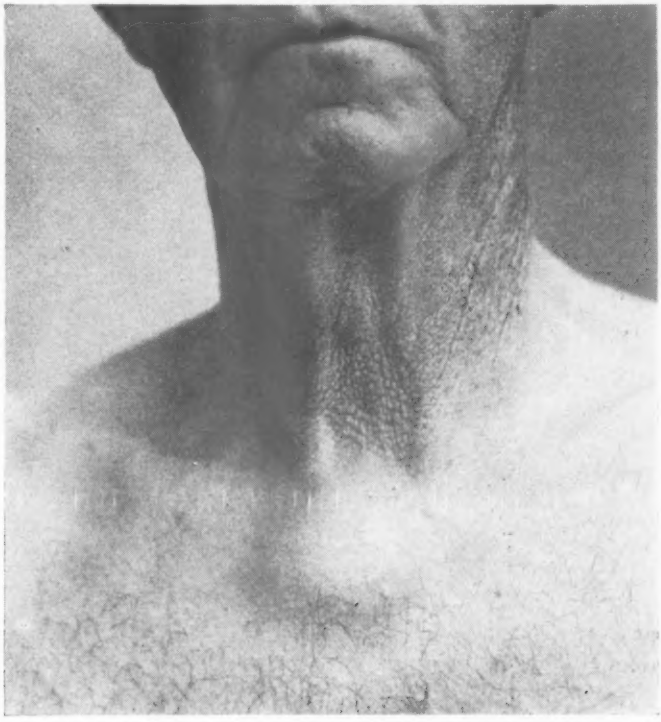

Fig. 6.—Mr. C. L. G. Photograph of pulsating tumor of the anterior mediastinum. (From Pulsating Tumors of the Anterior Mediastinum, J. Shelton Horsley, *S. G. and O.*, 75:49-53, July, 1942).

of much of the transverse colon and appendectomy (Fig. 1). A letter, dated February 3, 1945, from the patient states: "So far as I know there is not anything wrong with me except old age. I was 79 in January. I have not been sick since my operation to amount to anything. I do my own work and get on fine."

An interesting feature about this patient, too, is not only the extent of the disease and the complication that she had, but histologically the cancer seemed quite malignant, at least grade 3 (Fig. 2).

A case of far advanced cancer of the stomach, Mrs. W. B. L., with total gastrectomy was reported

pain four or five hours after eating. There were nausea and vomiting, with relief after vomiting.

A total gastrectomy was done on May 28, 1943. It was necessary to remove the spleen. There was involvement of the pancreas near the region of the gastric artery. The adherent portion of the pancreas was excised with the hot electric cautery. The lesion, adenocarcinoma, grade 3, involved most of the stomach (Figs. 3 and 4).

The patient made a very satisfactory recovery: her temperature was never above 99.8° except on June 10 when she had a short attack of pyelitis. She was discharged from the hospital on June 24,

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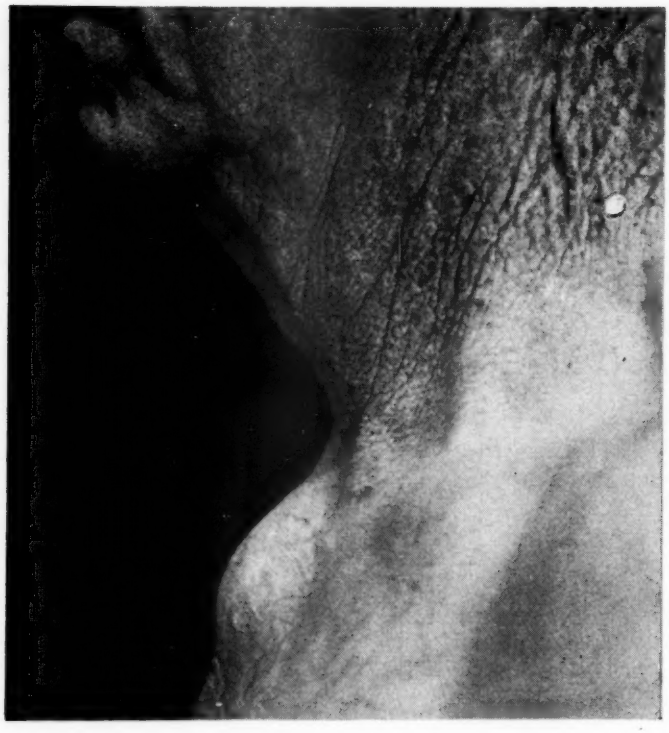

Fig. 7.—Photograph showing lateral view of pulsating tumor of the anterior mediastinum. (From *S. G. and O.*, 75:49-53, July, 1942).

1943. Figs. 3, 4 and 5). Figure 5 shows x-ray plate 22 days after operation.

In a letter received from the patient on September 8, 1943, 3 months after operation, she said she had an excellent appetite, could eat almost anything, usually had some discomfort for a short time immediately after meals, but was feeling quite well. The discomfort was doubtless due to distention of the jejunum. The patient returned for a checkup on June 21, 1944. She seemed in very good condition. She had gained 18 pounds in weight since leaving the hospital. Both legs were somewhat swollen, more marked on the right side. The blood examination showed hemoglobin 70 per cent; r.b.c. 4,050,000; w.b.c. 9,450. Non-protein nitrogen was 32 mgm.; blood sugar 80 mgm., blood chlorides 415 mgm., and total proteins 5.49.

She had not been heard from since June, 1944, until a letter of December 11, 1944, from her daughter stated that patient died on November 19, 1944. There was no necropsy, but probably there was recurrence of the cancer. She had had more than a year of comfortable life.

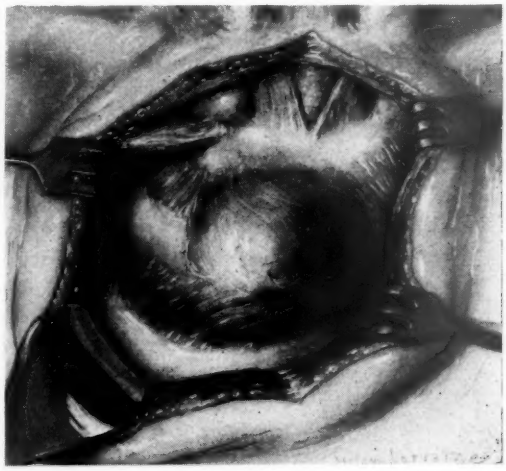

Fig. 8.—Drawing showing the fascia and muscle over the tumor exposed at operation. (From *S. G. and O.*, 75:49-53, July, 1942).

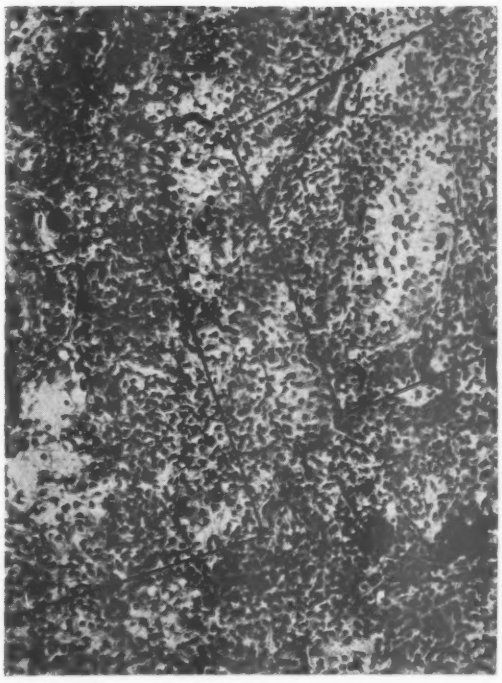

Fig. 9.—Photomicrograph of the tumor (Reduced from X 150). Note the structure with acinous formation, clear cells and other cells packed in close formation. (From *S. G. and O.*, 75:49-53, July, 1942).

CANCER OF THE ANTERIOR MEDIASTINUM

Case 6.—The case of Mr. C. L. G., age 74 years, with tumor of the anterior mediastinum, has been previously reported in July, 1942 (Horsley, J. Shelton: "Pulsating Tumors of the Anterior Mediastinum", *Surg., Gyn. and Obst.*, Vol. 75, 49-53, July, 1942), but this is a final report. He was admitted to the hospital on July 8, 1940. There was a pulsating growth in the upper sternum slightly to the right of the midline. He had first noticed it about four months prior to admission. It had gradually increased in size. It had never been tender or painful. A left nephrectomy had been performed on the patient by Dr. Roy W. Upchurch, of Danville, on May 23, 1933. There was an impacted stone in the lower third of the left ureter. The kidney was a pyonephrotic sac full of pus. There was no evidence of malignancy. On July 10, 1933, Dr. Upchurch did a transurethral resection of an enlarged middle lobe of the prostate. There was no cancer. The patient recovered satisfactorily from both operations.

On admission the patient was in fairly good general condition for his age. Wassermann test was negative. Blood and urine were about normal. There was a pulsating mass over the upper manubrium slightly to the right of the midline (Figs. 6 and 7). The pulsations were expansile and synchronous with the heart beat. There was no bruit. The tumor was about 6 cm. in diameter and 4 cm. in elevation. The heart seemed to be normal. Blood pressure was 170/95 in both arms. X-ray examination showed a defect in the upper manubrium. The defect was smooth in outline and about 5 x 4 cm. Dr. Fred M. Hodges, who made the roentgenological examination, thought the lesion was probably a tumor of the anterior mediastinum. The heart and aorta appeared normal under x-ray. The expansile pulsation was so obvious that I made a tentative diagnosis of aneurysm of the right internal mammary artery.

He was operated upon July 10, 1940. After an incision through the skin and fascia over the tumor, the pulsations diminished and ceased completely when some of the surrounding bone was removed (Fig. 8). The pulsation had evidently been transmitted from the aorta through the tumor. The tumor

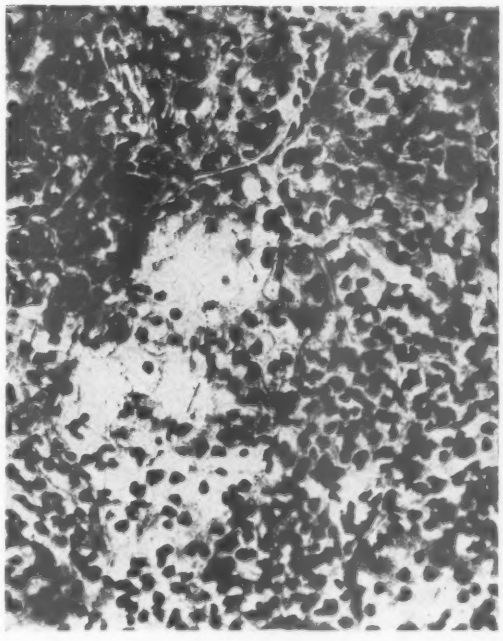

Fig. 10.—Photomicrograph showing higher magnification of blocked off a ea on the left side of Fig. 9 (Reduced from X 360). Note the clear cells at the top of the acinous formation. (From *S. G. and O.*, 75:49-53, July, 1942).

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was soft and was held firmly by the fascia. As much of the growth as possible was removed. It was extensive and bled so freely that some of the posterior part of the tumor was left. Five radium needles, each containing 10 mgms. of radium, were inserted and iodoform gauze was firmly packed in the wound. The wound was partly sutured over the gauze.

The specimen consisted of a large portion of the tumor and several smaller portions. The largest portion measured 5 x 4 x 2½ cm. There was an apparent capsule which was really fascia and muscle that the growth had pushed forward. The tumor was soft, almost jelly-like and pale yellow color. Adherent to its outer edges were several spicules of bone that had become attached to the tumor as it eroded through the sternum. There were three other pieces of the tumor, the largest of these measuring 3 x 2½ x 1½ cm. Microscopically, the tissue consisted chiefly of epithelial cells with very scant stroma. The cells varied in size and shape. They were round, polyhedral, cubical and columnar. Throughout much of the microscopic field the cells were arranged in acinus-like formation. Occasionally the acini were distinct and contained large, clear, columnar cells. Other portions showed the cells packed rather closely together (Figs. 9, 10 and 11). In many areas the cells resembled those of adenocarcinoma of the kidney with almost clear cytoplasm and a small nucleus. The cytoplasm was usually slightly granular. Dr. A. C. Broders pronounced the tumor adenocarcinoma, grade 3, but was uncertain as to its origin. The margin of the bone that was removed seemed normal. The erosion was obviously due to pressure.

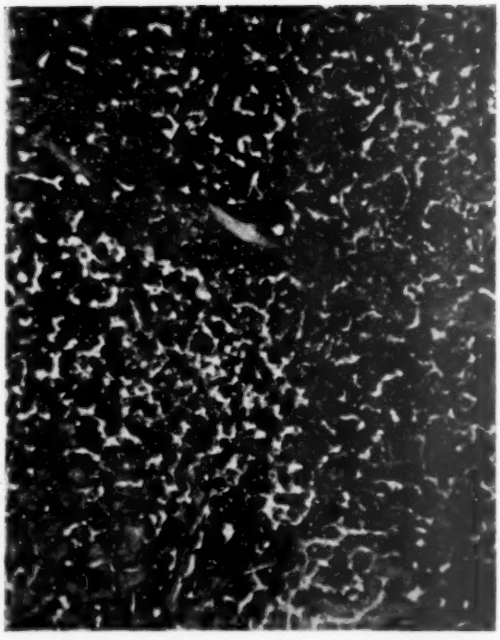

Fig. 12.—Photomicrograph taken December 6, 1940, 135 days after the end of the x-ray treatment. (Reduced from X 250). Note the apparent complete destruction of the tumor cells with merely amorphous material remaining.

Fig. 11.—Higher magnification of the blocked off area on the right of Figure 9. (Reduced from X 360). Note the distinct acinous formation of columnar cells with slightly granular and almost clear cystoplasm. Surrounding cells of different sizes and shapes are packed closely together. (*S. G. and O.*, 75:49-53, July, 1942).

When the radium and packing were removed, there was profuse bleeding. The wound was opened and the vessels were controlled by sutures. One week after the operation x-ray therapy by Dr. Hodges was begun. There were 7 treatments. As the lesion was rather superficial, instead of using deep therapy the patient was given 130 kilovolts—6 millimeter aluminum filter, 70 minutes—approximately 1800 roentgens. Biopsy from the depth of the wound 2 days after the roentgenological treatment was completed showed degeneration of the neoplastic cells. He was discharged from the hospital one month after operation.

Biopsy from the depth of the wound 4½ months after the roentgenological treatment was completed disclosed complete degeneration of neoplastic cells (Fig. 12). Several plastic operations were done and

Fig. 13.—Mr. V. S. Photograph showing basal cell cancer of the left face.

the wound was finally closed, though a few spicules of bone later came through a small sinus.

The patient again entered the hosptal on August 24, 1943, with arteriosclerosis of the lower extremities and a spastic duodenum. X-ray examination showed no recurrence of the tumor of the thorax, a spastic duodenum, and some bone destruction about 3 inches in diameter in the right iliac bone which was thought to be due to chronic infection. The blood vessels of the pelvis and around the ankles showed extensive calcification. There were diverticula in the sigmoid. There was no definite pathology in the chest. There were advanced arteriosclerotic changes in the vessels of both feet, more in the right foot. The chief credit for the apparent cure of this unusual tumor is due to the effective x-ray treatment by Dr. Hodges.

The patient seemed to improve slowly for a while after leaving the hospital, but the discomfort in his legs increased and he gradually grew worse and died at his home, Chatham, Virginia, on February 5, 1944, 3½ years after operation. No post-mortem examination was made, but there appeared to be no recurrence of the tumor.

Morris and Harken (Morris, John H., and Harken, Dwight E.: *Ann. Surg.*, 1940, 112:1-21) have reported several cases of so-called Pancoast tumor. The Pancoast tumor originates in the posterior thoracic inlet adjacent to the pulmonary apex. The histological structure is that of an "epidermoid carcinoma". Pancoast believes that there are persistent rests from the ectodermal portion of the branchial structures which serve as primordial origin for the neoplasm he described.

Fig. 14.—Photomicrograph (X 150) of basal cell cancer shown in Figure 13.

It would seem that this may be a tumor originating in rests from the portions of the branchial grooves or pouches that give entodermal or columnar and cubical epithelium. Such rests might be from

the lateral primordia of the thyroid from the fourth branchial groove, from the third branchial pouch which forms the thymus, or from the third and fourth branchial pouches from which the parathyroids arise. This does not call into consideration the ultimo-branchial transient structures.

A very interesting feature of this case is the contrast between the histologic picture of the tumor when first exposed by operation and the histologic picture after the x-ray treatment was given (Figs. 9, 10, 11 and 12).

necessary for the adjacent basal cell cancerous tissue to overcome this resistance before the cancer can spread. In basal cancer about the face, for instance, the lesion may continue to grow by contiguity or continuity of tissue but not by metastasis in the lymph nodes. With this in mind, if the cancer is removed as radically as possible with the cautery and afterwards the raw surface is covered with a pedicle flap taken at some distance from the growth so that the natural immunity in the tissues in the flap is preserved, frequently a cure may be obtained.

Fig. 15.—Photograph on June 20, 1944, just before transferring the pedicle flap.

EXTENSIVE BASAL CELL CANCER

Patients with extensive basal cell cancer are sometimes difficult to cure by radiation or operation, especially if bone or cartilage is involved. Basal cell cancer does not metastasize. So-called basal cell cancers that metastasize are either cases in which there is both basal cell and squamous cell cancer, or the cystic basal cell type which is somewhat different from the ordinary basal cell cancer. There seems to be something in the normal tissue that inhibits the growth of basal cell cancer and it appears

Case 7.—Mr. V. S., age 68 years, illustrates this, and while the time since the operation cannot be considered sufficient to justify the term "cure", so far there has been no evidence of recurrence while in 1943 there was rapid recurrence after operation. He had been operated upon by competent surgeons elsewhere and treated several times with radium.

In 1929 the patient noticed a lump on the left side of his face. There was no open lesion at the time, but several months later he saw his physician who told him it might be a cancer and cauterized it

with an electric needle. The lesion disappeared for a year, then a small shot-like node arose in the center of the scar. It broke down and began to drain. He returned to his physician in 1931 and the lesion and stayed healed for three years. In 1943 the area was again excised and all but a small portion healed. Later that same year the unhealed portion was again excised, but the wound did not heal.

Fig. 16.—Photograph on July 13, 1944, just before division of the pedicle flap.

was treated with radium, but without benefit. In 1933 there was swelling in this area and also below the original lesion and the patient saw his doctor who treated both lesions with radium without effect. In 1935 he saw another physician who gave him intravenous injections for about five months. In 1940 he consulted a surgeon who excised the entire area and cauterized the base. The wound healed

Examination on admission to St. Elizabeth's Hospital, May 24, 1944, showed a large ulcerated lesion over the left malar region and paralysis involving the upper portion of the left facial nerve. The patient was unable to close his left eye and there were no wrinkles in the left side of his forehead (Fig. 13).

On May 26, 1944, two days after admission, the patient was operated upon under sodium pentothal

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anesthesia. Biopsy showed basal cell cancer (Fig. 14). Much of the malar bone and the zygomatic process lay exposed in the floor of the lesion. After excising the ulcerated tissue with the hot electric cautery, the surface of the malar bone and the zygomatic process was thoroughly cauterized and the zygomatic process and the lateral portion of the malar bone were excised with bone forceps. The whole surface of the wound was then cauterized with the hot electric cautery. A long flap on the scalp and forehead was outlined by incision, with the base about the midline of the forehead and extending back laterally on the left side of the scalp to the occipital region (Fig. 15).

On June 4, 1944, the flap was further detached, and on June 20, 1944, the flap was transferred to the left temporal region (Fig. 16). On July 13, 1944, the pedicle was divided and the defect in the scalp was covered with Thiersch grafts.

The patient was discharged from the hospital on July 27, 1944, with the wound practically healed.

A letter, dated February 10, 1945, from his physician, Dr. Laurie Moore, of Beaufort, N. C., states that there is no evidence of recurrence.*

*A letter from the patient's wife, under date of May 9, 1945, says there is a small ulcerated area just external to the left orbit. He has been urged to return for further examination and treatment, if necessary, but refuses to do so.

The Eye-Bank for Sight Restoration.

Formation of The Eye-Bank for Sight Restoration, Inc., which will collect and preserve healthy corneal tissue from human eyes for transplanting to blind persons who have lost their sight because of corneal defects, has been announced. The organization, national in scope, has been incorporated under the laws of New York State and 22 leading hospitals in New York City are now affiliated with it; in addition, 20 outstanding ophthalmologists throughout the country will serve in an advisory capacity. Headquarters are at 210 East 64th Street, New York City.

Between 10,000 and 15,000 blind persons with corneal defects, in the United States, may have an opportunity to see again through the activities of The Eye Bank. The operation substituting a healthy cornea for a damaged one can restore sight in only one type of blindness—that caused solely by opacity of the cornea when the rest of the eye and optic nerve are normal.

The Eye-Bank has been established in order to make available to hospitals and surgeons who are qualified to perform the corneal graft operation a supply of fresh or preserved corneal tissue, wherever and whenever needed.

Any eye which is sent to The Eye-Bank will have a complete pathological study made and a report sent to the institution which supplied the eye, on request; also bacteriological studies will be made for possible contamination, etc. Institutions desirous of making their own pathological examination will have the eye returned to them in the proper preservative fluid. There are naturally many smaller institutions that do not have the facilities for the proper pathological examination of eyes, and one of the purposes of The Eye-Bank is to encourage complete pathological studies of all eye tissues sent to it.

PARTIAL DUODENOPANCREATECTOMY ITS USE IN THE TREATMENT OF PANCREATIC MALIGNANCY—CASE REPORT*

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Radical surgery of the pancreas is now going through a gradual evolution of operative procedures which will eventually, when sufficient cases have been collected, lead us to consider pancreatectomy as the operation of choice in carcinoma of the ampulla of Vater or of the periampullary region of the pancreas.

Removal of large parts of the pancreas was first described in detail in 1907 by Desjardins and in 1908 by Sauve, but due to the high mortality incident to this procedure and to the mistaken belief that pancreatic secretions were essential to life, the operation was not generally adopted by the profession until 1935. At this time Whipple, Parsons, and Mullins,[1] acting on the work of Dragstedt,[2] who had proven that in dogs the pancreatic ducts could be ligated without damage to gastrointestinal function reported the first duodenopancreatectomy, which was done on a case of carcinoma of the ampulla of Vater. Their first case died of a cholangeitis after a few months, but their second case, done a short time later, survived for 28 months. Whipple advocated a two-stage operation. At the first stage he did a gastroenterostomy, a ligation of the common duct, and a cholecystogastrostomy. At the second stage he resected the second and third parts of the duodenum and the head of the pancreas and sutured the cut end of the gland.

In 1937 Brunschwig[3] did the first radical operation for carcinoma of the head of the pancreas. To eliminate the possibility of a cholangeitis, which is likely when the stomach and gall-bladder are united, Brunschwig used a loop of jejunum to establish continuity with the biliary system, and this became a generally accepted procedure.

In 1938 Whipple,[4] also attempting to eliminate this complication of cholangeitis, changed the operation he originally described by ligating the common duct, doing an anterior cholecystojejunostomy on the Roux principle of anastomosing the distal cut end of the jejunum to the fundus of the gall-bladder, and then doing an end-to-side anastomosis of the proximal cut end of the jejunum to the side of the jejunum about 10 cm. below the cholecystojejunostomy. This was done as the first stage. At the second stage he did a gastrojejunostomy with excision of the descending portion of the duodenum, the lower end of the common duct, and the head of the pancreas.

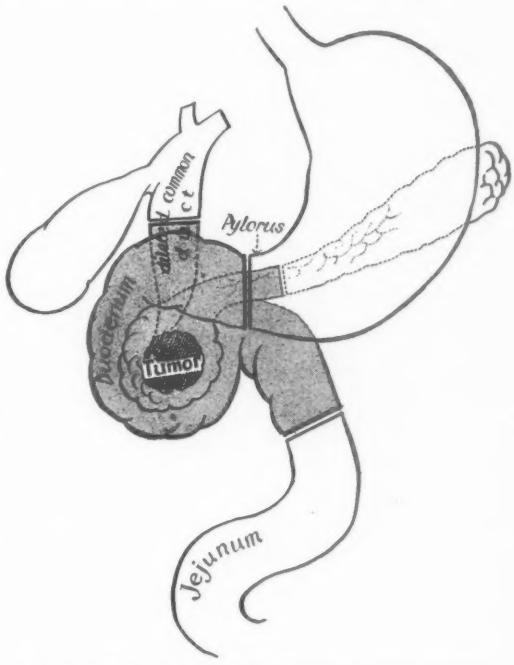

Fig. 1.—Shaded area shows the amount of tissue resected in a radical duodenopancreatectomy. Anything less than this amount is not sufficient.

Following the introduction of vitamin K, bile salts, blood plasma, and vitamin B, the need for the first stage, the prime function of which had been to relieve the jaundice, was no longer felt. In 1940 Whipple performed the first radical one-stage duodenopancreatectomy. A month later Trimble,[5] independently, repeated this operation and added several improvements.

*Presented at the meeting of the Medical Society of Virginia in Richmond, October 23-25, 1944.

From the Department of Surgery, Medical College of Virginia.

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Many of the previous cases, in which the gall-bladder had been anastomosed to the intestinal tract, developed a biliary fistula because of failure of the common duct to stay tied off. Trimble, therefore, used the common duct as the means of anastomosis instead of the gall-bladder. He also advocated the removal of the distal end of the stomach as well as the entire duodenum, to eliminate the additional suture line and to eradicate the blind duodenal pouch. He anastomosed the stomach to the jejunum by the anterior Polya method. His case recovered. All of these changes have now been generally adopted.

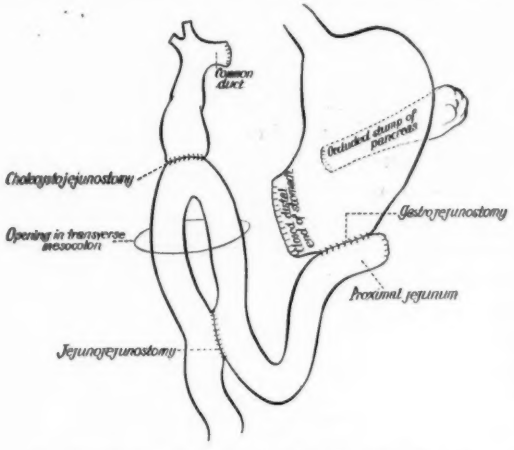

Fig 2.—Diagram showing the operation we performed in this case.

The operation itself is a major one and one with high mortality. In a recent series, Hunt[6] reported a 30.6 per cent mortality in the 124 cases of pancreatoduodenectomy which he collected from the literature and from his own experience, but since the operation carried out the fundamental principles of cancer surgery in excising *en bloc* tissues wide of the growth, it continued to gain in favor. Heretofore, carcinoma of the pancreas was a fatal disease in a few months. Ransom[7] reported a series of over 100 cases in which palliative operations had been done. The average duration of life was 7.2 months in those in whom a follow-up had been done. We thus now have a method of prolonging life in these cases, and even though the results are still

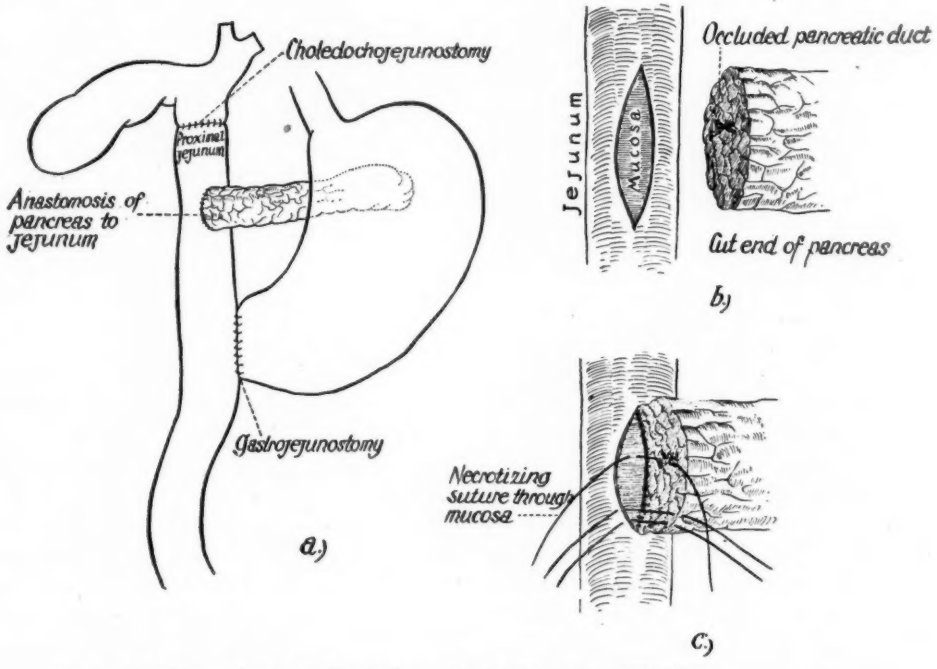

Fig. 3.—(A) Diagram showing the proposed operation for future cases (Whipple).
(B) and (C) Cattell's method of anastomosing the pancreas and pancreatic duct to the jejunum.
(B) shows the incision in the bowel wall through the serosa and muscularis, down to the mucosa. The pancreatic duct is ligated.
(C) showing the method of suturing the pancreas to the bowel.

poor, there is definite improvement as more cases are done. It seems likely that the procedure will soon be perfected to offer a much better prognosis than we have at present.

Unfortunately, a great number of patients with cancer of the pancreas do not present clinical symptoms until the disease has progressed too far for surgery to offer much in a curative manner. Even when clinically the patient seems operable, only a few of those patients with pancreatic malignancy will be found to be operable as far as the radical resection is concerned. To overcome this handicap in part, we feel that every patient who has an obstructive jaundice is entitled to an exploration if at all possible, and the operation should not be too long delayed.

At operation, one is faced with two problems: whether the lesion in the head of the pancreas is malignant or not, and whether the pancreas is resectable or not. Accurate palpation will most often aid in determining if the lesion is malignant, and, in addition, a biopsy should be done. If a positive report is given for the frozen section, the question is settled. However, more often than not, the report will be that of chronic pancreatitis, a report which does not rule out malignancy, for as the tumor grows it obstructs small ducts and a chronic inflammation will develop about the tumor. This encirclement of the tumor is of varying thickness and it may be that this layer will be all that is biopsied, and the actual tumor missed. It is, of course, a tragedy to do this radical operation and then find that no tumor was present. However, the decision of whether or not to proceed with the radical operation must rest with the surgeon at the operating table.

Insofar as the operative procedure is concerned, it is important that the head of the pancreas and the duodenum be mobilized as the first step, for often the tumor will be found to be adherent to the superior mesenteric vessels, or there will be deep involved lymph nodes and the lesion will prove inoperable. Should this be the case, the operation can easily be discontinued and some form of palliative surgery done. In our case the lesion grossly was definitely operable.

CASE REPORT

J.E.K., a 63 year old Negro minister, was admitted to the St. Philip Hospital on April 16, 1944, complaining of weakness, itching, and jaundice. He had been well until two months before admission when he noticed a tired, heavy feeling in the upper abdomen and a loss of appetite. About four weeks before admission he developed generalized itching and noticed that his stools were light in color and his urine was darker. His family history and past history were irrelevant.

On physical examination the patient was found to be quite jaundiced. The liver was palpable 2 cm. below the costal margin. A firm, irregular mass was felt in the right upper abdomen. It seemed to be fixed and it did not move with respiration.

The specific gravity of the urine was 1.023; the urine was dark brown in color and acid in reaction; albuminuria was graded 1; a positive reaction for bile was obtained; the urine was negative for urobilinogen and positive for urobilin. The concentration of hemoglobin was 80 per cent; erythrocytes were numbered 3,690,000 and leukocytes 5,200 in each cubic millimeter of blood. The prothrombin time was 16 seconds. The Van den Bergh test gave an immediate direct reaction. With the patient in a fasting state the concentration of sugar was 108 mg. per cent. The icteric index was 70 mg. per 100 cc. of blood.

A diagnosis of obstructive jaundice was made, believed to be due to a malignancy in the head of the pancreas. The patient was transfused twice prior to operation and given ample doses of vitamins B, C, and K.

At operation on April 22, 1944, under nitrous oxide, oxygen, and ether anesthesia, the abdomen was opened through an upper right rectus incision. A malignancy of the pancreatic head was found and confirmed by biopsy. A radical one-stage duodenopancreatectomy was then proceeded with and completed in five and one-fourth hours. The head of the pancreas and the duodenum were mobilized by incising the peritoneum along the greater curvature of the duodenum. The lesion was found to be adherent near the superior mesenteric artery but it could be removed without harming the vessel. The lower part of the stomach was divided and the superior pancreatico-duodenal artery ligated. The cystic duct entered the common duct just above the superior level of the duodenum and it was with some difficulty that the common duct was divided. It was obvious that it would be necessary to use the gall-

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bladder for the anastomosis to the bowel, as the length of the common duct which remained was too short. The duct was doubly ligated with silk and chromic catgut. The pancreas was then transected an adequate distance away from the palpable induration around the tumor, the pancreatic duct ligated, and the cut end of the pancreas closed with interlocking mattress sutures of fine silk. The pancreas and duodenum were dissected free from the underlying structures. The ligament of Treitz was incised and the jejunum transected about 3 cm. distal to the ligament. The distal segment was closed and the duodenum and head of the pancreas were removed. A posterior isoperistaltic side-to-side gastrojejunostomy was done and the transverse mesocolon sutured to the bowel just below the anastomosis. A long loop of jejunum was then brought up anteriorly and anastomosed to the gall-bladder. A jejunojejunostomy was then done between the efferent and afferent loops of jejunum which led to the gall-bladder anastomosis. The pancreatic bed was drained through a stab wound, and the operative wound closed.

The specimen consisted of two centimeters of stomach, including the pylorus, the entire duodenum, two inches of jejunum, part of the common duct, and the head of the pancreas. The pathologist found an adenocarcinoma, grade 3, two centimeters in diameter, in the head of the pancreas. The adjoining pancreatic tissue was fibrotic and cystic. There was almost complete atrophy of the acinar tissue with only islet tissue remaining. The ducts were widely dilated.

The patient stood the long operation remarkably well. On the first post-operative day his blood sugar was 204 mg. per cent, but his urine was free of sugar at all times. Small amounts of insulin were given along with his intravenous glucose for the first few days and then discontinued. His blood sugar returned to normal. On the eighth post-operative day he developed an obstruction in the jejunum where it went through the transverse mesocolon and it was necesary to re-operate upon him to relieve this condition. He recovered from this procedure. During the course of his treatment he received seventeen transfusions, four of which were from donors who had been given vitamin K before the blood was taken from them. Just as we felt that a satisfactory recovery was within reach, the patient, on the twelfth post-operative day, became very listless and his pulse became weaker. His blood pressure gradually fell in spite of blood transfusions, and, although he remained conscious, it seemed that he was dying in spite of any treatment which we could offer him. We had been giving him pancreatin and large doses of vitamin A along with his regular diet, but we were unable to obtain any lipocaic. The patient's temperature gradually rose to 106° F. and he died on the thirteenth post-operative day. Permission for an autopsy was granted but we were not allowed to examine the head for evidence of a cerebral accident. Postmortem examination failed to reveal a cause of death. The operative sites were well healed and functioning.

We have no good explanation for the sudden change in this patient's condition. We felt, somehow, that the operation was a success technically, but we still were unable to prevent the death.

DISCUSSION

The chief problems in pancreatectomy had been the development of biliary and pancreatic fistulae. The biliary fistulae had theoretically been eliminated by Trimble's operation. The pancreatic fistulae, though troublesome, usually healed spontaneously, or the fistulae were later anastomosed to the bowel. These fistulae, however, brought up the main problem of whether the pancreatic secretions were necessary or not. It had already been shown that human life was compatible with the absence of these secretions, but there was definite evidence that their absence seriously impaired fat and protein absorption. When the pancreatic ducts were ligated during a partial pancreatectomy,[8] there was an atrophy of the remaining pancreas and a fatty infiltration of the liver. If this secretion from the pancreas, however, escaped by means of a fistula, these changes did not develop. Obviously, fatty infiltration of the liver was not necessarily due to the absence of this secretion from the gastrointestinal tract, but was probably due to the atrophy of the pancreas. Dragstedt[9] and his associates discovered a specific substance in alcoholic extracts of beef and pork pancreas which, on oral administration to depancreatectomized dogs treated with insulin, permitted a survival and prevented the fatty degeneration and infiltration of the livers of these animals. They suggested that the pancreas, in addition to insulin, man-

ufactures another hormone, the function of which is the control of fat metabolism. This factor they called lipocaic.

On the basis of these tests, it would seem that the pancreatic remnant should be allowed to function or else substitution therapy would have to be given. If this were true, a complete removal of the pancreas should always cause the patient to need lipocaic or else the operation would be fatal. In 1942, however, Priestly[10] did a total pancreatectomy for an islet-cell adenoma. The operation was successful and the patient was in excellent health sixteen months later. Though he did have a definite disturbance in fat and protein digestion, no lipocaic deficiency developed. Each additional case seems to confuse the accumulated evidence. It has now become evident, as Blalock[11] points out, that some people get along without the external pancreatic secretion; others get along without it but lack the full digestive powers for fat and proteins, while still others lack these powers and do poorly. Unfortunately, we have no way of telling beforehand which type of patient we are dealing with.

In a recent summary of this problem, Dragstedt,[12] from his work on dogs, concluded that if 80 to 90 per cent of the pancreas was removed, there was no interference with digestion, provided the pancreatic duct emptied into the intestinal tract. If 90 to 95 per cent of the pancreas was removed, however, with the remnant being left attached to the duct, digestion and absorption were impaired and lipocaic was usually required. If a complete pancreatectomy was done, digestion was impaired and lipocaic was always needed. Permanent occlusion of the ducts produced a similar impairment, and if partial pancreatectomy was also done, the atrophied remnant became deficient as an endocrine organ and lipocaic deficiency appeared.

In spite of this strong evidence in favor of retaining the pancreatic secretions, there are still many adherents to the other side of the question. Brunschwig, who routinely obliterates the pancreatic remnant, recently reported a four year survival of a monkey who had the pancreatic duct ligated. Even though he and other prominent workers in this field maintain that the preservation of pancreatic secretion is unnecessary and time-consuming, stating that there is no evidence that an anastomosis of the pancreas or its duct actually functions, it seems that it is more sound physiologically to maintain the secretion if at all possible. Whipple, on the other hand, had occasion to reoperate upon a patient on whom he had done a radical duodenopancreatectomy three and a half years previously. He found the pancreatic remnant to be fibrosed, with a cystic degeneration, and functionless. This factor led him to adopt an anastomosis of the pancreas to the intestinal tract as a routine measure. Cattell[13] has always maintained that this procedure should be done, and in none of his cases has lipocaic been necessary. This question remains the major problem in surgery of the pancreas and it is only as a larger number of cases is done, over a longer period of time, that some definite conclusion can be reached.

Because of the unfortunate outcome in our patient, we have added very little to the growing information about pancreatectomy. In following this case as closely as we did, however, we could not help but be impressed by the manner in which his clinical course simulated that of infants who have a congenital cystic fibrosis of the pancreas. Literature on this similarity appears to be lacking, and it may be that there is no connection between the two conditions, but theoretically they are the same in so far as the function of the pancreas is concerned. Babies with this congenital disease have, in effect, a pancreatectomy. The ducts become occluded by a thick tenacious material which destroys the pancreatic cells and produces a fibrosis.[14] When the process has gone far enough the pancreatic secretion is blocked off from the intestinal tract. Following the failure of the pancreas, through atrophy and fibrosis, the liver becomes involved in a similar process, which results in cirrhosis. The process extends to all of the glandular structures of the body and eventually reaches the lungs which become bronchiectatic. A pulmonary infection sets in and the patients always die of the pulmonary complication. On substitution therapy and large doses of vitamin A, this progression of events does not develop, and one child has been kept alive for seven years on this regime.

The pathological picture in our case which we have just presented was markedly similar to that in these infants. Our patient had a fibrosed pancreatic remnant and obstruction of the biliary ducts in the liver with early fatty degeneration, all of which fit in with the classical picture of pancreatic insuf-

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ficiency. We used the same substitution therapy in our case as is used in these infants, but we obviously started it too late to be of much benefit. Is this not more evidence—clinical evidence—that the body does need the pancreatic secretions if it is to survive for long periods of time?

It seems most logical, then, that to prevent death following a radical duodenopancreatectomy we must prevent pancreatic insufficiency. In spite of evidence to the contrary, we are able to deduct only that if the pancreatic secretions are maintained and allowed to enter the intestinal tract by one manner or another, the pancreas will continue to function and normal body physiology will be maintained. In our future cases, we are certain that we shall attempt to preserve the pancreatic duct and implant it into the bowel. Of the various methods of doing this, we favor the technic described by Cattell, who makes a longitudinal incision in the serosa and muscularis of the jejunum and sutures the pancreatic duct to the mucosa with a necrotizing suture (fig. 3 B and C). He then sutures the rim of the pancreas to the margins of the incision in the outer layers of the bowel. If this anastomosis fails to function we can still resort to substitution therapy of lipocaic, nutramigen, pancreatin, or lecithin.

The operative procedure for removal of the head of the pancreas is about standardized and when the question of the manner in which the pancreatic remnant is treated is cleared up we feel certain that pancreatectomy will be the operation of choice in malignant lesions of the pancreas. The essential features of the operation seem to be: (1) the use of the common duct instead of the gall-bladder for anastomosis with the jejunum; (2) removal of the distal part of the stomach and all of the duodenum; and (3) placement of the gastric anastomosis so that it will be distal to the biliary anastomosis to prevent an often fatal cholangeitis. We believe that continuous spinal anesthesia is the anesthesia of choice.

It will still be several years before we have a standardized and fully acceptable operation, but we are convinced that we have a sound physiologic procedure based on accepted radical cancer surgery principles that is used on what would otherwise be a fatal disease.

SUMMARY

1. The evolution of duodenopancreatectomy is presented along with reasons for the changes as the number of operations increased.

2. Even though the mortality of the operation is still over 30 per cent, the operation has increased the life expectancy in cases of carcinoma of the pancreas or ampulla of Vater.

3. A case of partial duodenopancreatectomy is presented which resulted in death on the thirteenth post-operative day of unknown causes.

4. The question of whether the external pancreatic secretion is necessary or not is explored. It is our conclusion that the secretion must be retained if survival is to be maintained for any great length of time.

5. Pancreatectomized individuals are compared to cases of congenital fibrocystic disease of the pancreas.

REFERENCES

1. Whipple, A. O., Parsons, William B., and Mullins, Clinton R.: *Ann. Surg.* **102**:763, 1935.
2. Dragstedt, L. R., Dragstedt, C. L., McClintock, J. T., and Chase, C. S.: *Amer. Jour. Physiol.* **46**:584, 1918.
3. Brunschwig, A.: *Surg., Gyn., and Obst.* **65**:581, 1937.
4. Whipple, A. O.: *Amer. Jour. Surg.* **40**:260, 1938.
5. Trimble, I. R., Parsons, J. W., and Sherman, C. P.: *Surg., Gyn., and Obst.* **73**:711, 1941.
6. Hunt, Verne C.: *Ann. Surg.* **114**:570, 1941.
7. Ransom, H. K.: *Amer. Jour. of Surg.* **40**:264, 1938.
8. Whipple, A. O. (Quoting Dragstedt): *New England Jour. Med.* **226**:515, 1942.
9. Dragstedt, L. R., Van Prohaska, J., and Herman, P. H.: *Amer. Jour. Physiol.* **117**:175, 1936.
10. Priestly, J. T., Comfort, M. W., and Radcliffe, J., Jr.: *Ann. Surg.* **119**:211, 1944.
11. Blalock, Alfred: *New England Jour. Med.* **231**: August 24, 1944.
12. Dragstedt, L. R.: *Ann. Surg.* **118**:576, 1943.
13. Cattell, R. B.: *Surg. Clin. of North America,* June, 1943.
14. Farber, S.: *New England Jour. of Med.* **229**:17, 1943.

1200 East Broad Street.

DISCUSSION

DR. CARRINGTON WILLIAMS, Richmond: I hesitate to discuss this paper because I have never done one of these operations. I have, however, read a considerable amount of literature on the subject, because I have had two patients whom I explored thinking they might be suitable cases for this procedure. Neither one was on account of the extent of the disease.

I think the first thing that occurs to medical men in discussing an operation of this magnitude is whether or not we are ever justified in attempting such a procedure. I think we are, because, with the careful method of diagnosis that Dr. Lee has outlined, these patients are

headed for death in a relatively short while; and the fact that the mortality is high should not deter us from attempting to save a few, at least for a certain length of time. When we look back on the operative procedures that are nowadays commonplace and that are performed with relatively low mortality, such as operations on the stomach, and consider that in the days of Billroth, who was one of the pioneers in gastric surgery, the mortality was as high as Dr. Lee reports for this procedure, and when we think of the early days of chest surgery and how the removal of a lobe of a lung carried a tremendously high mortality and how nowadays the chest surgeon operates with confidence in removing all or part of a lung, I think we are justified in proceeding with confidence along this line.

The hazards confronting the surgeon are, first, a technical one at the time of operation, and, second, the physiologic disturbances that come after the operation. Dr. Lee is certainly to be congratulated on getting his patient by the first danger. The technical part of this procedure was carried out in such a manner that the patient survived the first phase of it.

Dr. Lee said he was uncertain about the cause of death. Certainly the patient's death was due to some disturbance of the physiology of the body, whether or not we can put our fingers on it.

Concerning Dr. Lee's description of his technical procedure I have only one criticism. As I understood it, he did a post-colic anastomosis between the jejunum and the stomach and attached the transverse mesocolon to the jejunum instead of the stomach. I feel that in all anastomoses between the stomach and the small bowel the transverse mesocolon should be attached to the stomach and unless I can do that I should do an anastomosis anterior to the colon.

Dr. Lee did not mention the fact that when you divide the common duct you necessarily very materially disturb its circulation. If it is ligated the end of it may become necrotic; and some of the fistulae resulting at that point are due to necrosis of the common duct, particularly if the function of the anastomosis between the gall bladder and the bowel is in any way impaired.

I do not know much about the physiologic disturbances. I do know, however, that the digestion of protein and fat is affected. It seems to me that the first proteins fed to them should be protein that is split up as much as possible. We now have amino-acids available for oral administration, and they are also safe for intravenous administration. Fat can be almost wholly excluded from the diet, and that is important because fat delivered to the portal circulation through the liver is one of the causes of liver degeneration, due to retention of the fat in the liver cells.

I have used lipocaic but have not reached any conclusions as to its value. It has to be administered by mouth, so it would be necessary to have an indwelling tube passing down through the anastomosis in order to give the lipocaic during the early days post-operative.

The question of anastomosing the pancreatic duct to the intestinal tract is a very important one, as Dr. Lee has made clear. Unfortunately, it is an extremely difficult technical procedure; and I think it is open to doubt whether the secretion of the pancreas is delivered through those small ducts even after anastomosis is effected. It is easy to see that it might not function. In addition to the doubt of its functioning, it does add an additional hazard to the procedure—not in the length of time it takes to do it but in the danger of the development of an intestinal fistula from leakage at the site of the anastomosis.

Dr. Lee has done an extremely good job on this both from the standpoint of his operation and from his presentation of the subject. It was a great pleasure to hear him, and I hope he will have opportunity to do some more of these cases.

DR. J. SHELTON HORSLEY, Richmond: The report of Dr. Lee on "Partial Duodenopancreatectomy" is very interesting. This form of surgery will doubtless be used more frequently in the future. I wish to call attention to a case that I have previously reported elsewhere, but it involves a somewhat different method of approach.

The patient was white, male, age 60 years, who had intense jaundice and clay-colored stools. After the usual preliminary preparation, he was operated upon April 16, 1940. The gall bladder contained no stones. The duodenum was contracted and contained a small mass about the region of the ampulla of Vater which evidently accounted for the jaundice. The head of the pancreas was slightly infiltrated, but on the whole seemed rather favorable for resection. The portion of the duodenum along the head of the pancreas and the infiltrated part of the head of the pancreas were removed with the cautery. The end of the common duct was greatly dilated and poured out white bile. The pancreatic duct came out of the stump of the pancreas a short distance from the common bile duct and it was not dilated. The common duct was so enlarged that by cutting it slightly obliquely, an end-to-end union was made between the common duct and the lower stump of the duodenum with fine silk. The duodenum was further invaginated over the whole stump of the pancreas so the pancreatic duct could drain into the duodenum. The gall bladder was drained. The specimen consisted of a segment of duodenum measuring 4½ cm. in length, and attached to it was a portion of the pancreas. From the ampulla was a protuberance 1.5 cm. in diameter. Microscopic examination showed a tumor of adenomatous structure with some leucocytic infiltration and slight hyperplasia, but it was not malignant.

The patient stood the operation remarkably well and left the table with a pulse rate of 88. In the first 24 hours his convalescence seemed quite satisfactory. The secretion of urine, however, was failing. On the fourth day he passed only 15 c.c. of urine and died on the fifth day after operation.

Necropsy showed healing around the site of anastomosis in good condition. There was about 300 or 400 c.c. of

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bile-tinged free fluid in the peritoneal cavity. There was no evidence of peritonitis or leakage of the sutures at any point. The kidneys were slightly enlarged and deeply stained with bile. Their surfaces indicated nephritis. The liver was enlarged. The lower lobe of the right lung was compressed and the lower lobe of the left was almost solid with what seemed to be hypostatic pneumonia. The patient died apparently of uremia.

While the indications for such an operation would be infrequent, it might be applicable in tumors of the ampulla of Vater or in cancer involving a superficial portion of the head of the pancreas. It has the advantage of preserving the external secretion of the pancreas and the pancreatic structure with lipocaic, which tends to avoid liver damage such as fatty degeneration. (Dr. Horsley illustrated his discussion with lantern slides.)

DR. C. LYDON HARRELL, Norfolk: I feel rather incompetent in trying to discuss this subject after three master surgeons have discussed it. What I would like to know and what you would like to know, is, how we can recognize these cases early enough for surgery. I had one recently that I fell down on completely. I was called to see a patient around the first of August, who was a mechanical engineer, complaining of stomach trouble and pain in the lower left chest. He said, "Doctor, I am sick", and he looked sick. He was a white male, age 53. He was in a cold clammy sweat, with very rapid pulse ranging from 130 to 140, and temperature 99 degrees. Blood pressure 130/80. The physical signs were practically nil, except he had very slight tenderness in the upper left quadrant, slight dullness to percussion to the lower lobe of the lung with an occasional squeaking rale. The urine was negative; white blood count a little over 9,000. I watched him for two or three days, but, as he continued to get sicker and sicker, he was transferred to a hospital, where he continued to be extremely weak, with a cold clammy sweat, very rapid pulse, and temperature ranging from 101 to 102.

I learned that he had been seen by another physician in April or May of this year. He complained of stomach trouble at that time, but nothing was found wrong, including x-ray of stomach and chest. I called in one of our best consultants in the city, but we were unable to determine just what was wrong. We had an idea he might have miliary tuberculosis. He still complained of pain in his lower left chest at this time which was about six days after I first saw him, and numerous coarse squeaking rales were heard over the lower half of both lungs. X-ray of his chest at this time showed marked infiltration in the lower part of both lungs. He died in about a week from the time I first saw him, of what we thought was congestive heart failure. He had been in an oxygen tent for three days, with stimulations, but with no results.

Autopsy revealed malignancy of the head of the pancreas metastasizing to the lower half of both lungs and the left suprarenal gland.

If this case had been recognized in the spring, surgery might have been of some help. I hope Dr. Lee, in his closing remarks, can enlighten us in the phase of this subject.

DR. LEE, closing the discussion: I should like to thank Dr. Williams, Dr. Horsley, and Dr. Harrell for their comments. Dr. Williams is correct in stating that this patient died from some physiologic disturbance. The manner in which he died had never been observed by any of us before. The entire change in his course from satisfactory to gradual decline and eventual death took place in twenty-four hours. He died of inanition, a gradual giving up of the entire body; but it was not shock or blood loss.

As I tried to point out, the question of whether a malignancy of the pancreas is present or not is a difficult one. Dr. Horsley's case is an example of this. On the other hand, if the lesion he removed had been a malignant one, his operation was not radical enough in that he did not remove enough of the surrounding structures. We have used up too much time already on this paper, or I would show my slides, in which I point out how much tissue should be removed. The diagrams will be included in the written report of this paper. I do believe it is recognized that unless the operation is done radically, it is better not to do it at all.

I am afraid that I cannot help Dr. Harrell very much. The diagnosis of carcinoma of the pancreas is extremely difficult, especially in the absence of jaundice. On the other hand, the malignant process has usually gone too far by the time the jaundice has developed. Dr. Brunschwig has recently reported six cases of total pancreatectomy for carcinoma involving the entire organ. The diagnosis can be made. If I may say that exploration for these vague cases, such as Dr. Harrell describes, should be done earlier than we usually do them, I trust I will be fully understood as to my meaning. I am not proposing unnecessary explorations, but I do feel that most of these cases are watched too long, even on the various services of our best clinics.

We are now at the beginning of finding something really valuable in surgery of the pancreas, and sooner or later we will overcome the mistakes we may be making now.

Thank you very much.

PLANNED PARENTHOOD

C. J. ANDREWS, M.D.,
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Birth control has been the subject of controversy at times during the past several centuries. Malthas, 1798, made an extensive study of population economics and recommended birth control as an answer. He failed to take into consideration the devastation of war, disease, maternal and infant mortality, and pestilence, which at times have contributed to depopulation.

Not many years ago, this movement was under the influence of laymen who used widespread propaganda without purpose except birth control itself. It is not surprising that under these circumstances the medical profession looked with disfavor upon it. It has been under the ban of the law of the land.

Many forward-looking citizens have seen in it, not a means of limiting the population, but of increasing the quality of the individuals constituting the population. They have considered the possibility of reducing the number of defectives, the criminal population, the feebleminded, and the hordes who are now a burden to the state and who must be supported by those who must carry on. It is concerned in the development of larger families who have not necessarily large means to hand down, but character and health. It undertakes to aid in decreasing useless maternal and infant mortality. It plans to do this by making it a part of preventive medicine. It is on this basis that the Virginia League for Planned Parenthood was organized. In this light the medical profession, as represented by the state and national organization, has recognized and adopted it as a part of its activity.

When this organization emerged from a contraceptive clinic alone to the League for Planned Parenthood, it assumed many new obligations which could not be avoided.

It was inevitable that some indications and contraindications for birth control be recognized and defined. These limitations are now fairly well agreed upon. The role of contraception as a preventive of unnecessary maternal deaths is now well known to doctors, but these truths must also be known to the people and become part of general education if justifiable results are to be obtained. It has been estimated that the elimination of pregnancy in the unfit would reduce the maternal mortality almost one-fourth. It is gratifying to know that the mortality rate is now one-third of that of ten years ago. It is not unlikely that this organization has contributed to this improvement. There are a number of conditions which render prospective mothers unfit. Repeated toxemias stand at the head of the list. There are certain types of this condition which add little to the risk but some others which justify the prediction of almost certain death. Unfortunately, many of these are only seen by the doctor when a fatal result may be inevitable.

GREAT MULTIPARITY. The risk of pregnancy increases definitely after the fifth pregnancy. This does not mean that no one should have more than five children, but most people should not. If pregnancy is undertaken, it should be done only after the most careful examination and consideration of all factors influencing the health of the patient. Unfortunately, changes in the heart, kidneys and blood vessels will often be found. Tuberculosis, diabetes and heart disease call for special consideration in a given case. Mental disease may contraindicate reproduction. It will be seen that there are a considerable number of conditions which may contraindicate pregnancy. When the contraindication is proven to be permanent, sterilization by tubal separation is advised. There can be do doubt that too frequent childbearing is at times a handicap which few women can withstand without detriment to the health of the mother and the children. Some recent publications would seem to suggest that this danger is not as great as was formerly believed to be the case, but, regardless of this, the facts are difficult to overcome. The injury may come as much from the care of the children as from actually having them.

Abortions, mostly criminally induced, are responsible for a large number of maternal deaths each year. Authorities estimate that four-fifths of all criminal abortions are of married women with children. This problem is so clearly associated with crime of various types that any successful method of prevention is most difficult and discouraging. It is obvious that planned parenthood, rather than unwanted pregnancies, should reduce this terrific loss

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of life and vast injury to health of individuals which often results in partial or complete invalidism.

I have seen only one or two women who said they never wanted children. Practically every woman wants children sometime, but only too often the prevention of pregnancy may prolong itself into permanency. This is evidenced by the fact that a large proportion of the women who consult gynecologists come for relief of sterility. Only about half of these can hope for success. Relief is in inverse proportion to the duration of the sterility. This knowledge should be a part of your propaganda. Certainly every doctor giving premarital advice should inform the woman of this.

This organization might well consider the positive side of the question as well as the negative. It is the prevailing, and I might say, the understandable desire of newly married women to avoid pregnancy for a time. It is not unusual for this plan to be encouraged by the woman's parents who personally wish the condition to be one of long standing. It is almost unbelievable the powerful influence that a dominating selfish mother can exert, but the perpetuation of this early sterility cannot be entirely blamed on the mother. The newlyweds may wish to pay off some previously acquired financial obligation. The economic situation will always influence the willingness to have children. This leads us into the consideration of economic problems far beyond our ability to cope with. In many cases, it is not a real economic problem at all, but undue concern for the future or possibly a greater desire to spend for other things than the needs of a baby which is not yet seen.

Perhaps some future administration can find a way to give us all absolute security, but until that time, these real problems must be faced. The question arises: Would the disappearance of these and other anxiety problems make the race stronger and more self reliant, or less efficient?

Some women who have one child do not want another on account of the pain of childbirth. This is largely a concern of the medical profession. I feel that it can be rather definitely stated that there are methods and ways of relief which are usually satisfactory if fitted to individual needs. The lay press has at times done much harm by advocating one method or another and causing the individual patient to demand some method whether it is suitable for her or not. The relief of pain in childbirth is, and will continue to be, important.

THE PREVENTION OF CRIME. Criminology presents many features of interest, particularly as to the causes of criminal tendencies and viciousness. These have widely branching roots which feed upon bad heredity and environment and many other evil influences. Excessive multi-parity in a family whose heads are not too well stabilized and who cannot really give the children the necessities of decent living may and do contribute considerably to the crime problems of the country.

Several years ago, I was the victim of a petty larceny. The culprit, a boy of about ten years, was found to be one of ten who had been delivered in our own maternity clinic. Investigation showed that he was an habitual criminal, as were also the other nine. We had been very successful in saving the lives of the mother and children, but the result had been disastrous to these very individuals whom we supposed we had benefited. A social worker, to secure the information about such a family, and a contraceptive clinic might possibly have contributed to the prevention of crime.

This brings up the question of juvenile delinquency which is crime in the making and furnishes an apt illustration of the need for cooperation of various organized agencies, each contributing its part to a common purpose.

While we may have no illusions as to a super race, it would seem to be suitable that every influence of such an organization as this should be used to produce normal children, mentally and physically, who would be expected to develop into a better and happier race. Successful prenatal care is important, and has a direct relation to maternal and foetal mortality, and also on the future lives of the individuals. Certain features of this are not well known and I regret to say, have not been given very much consideration by even the leaders in the profession.

It has been rather definitely shown that a woman smoking during pregnancy exposes the embryo to the poison of tobacco. I have seen no denial of this. The only controversy has been as to the amount which reaches the embryo, and some have expressed the belief that this amount was too small to be injurious. This has given great comfort to those who elect to smoke. By animal experimentation, it has been observed that many litters are born dead after being exposed to an amount of tobacco smoke comparable to that absorbed by a woman smoking a

pack of cigarettes daily. This suggests smoking as a cause of so-called spontaneous abortions.

I do not know of any recorded observations as to the facts here. I am at present making observation which, when sufficient numbers have been recorded, may give some information on this point. It is agreed that if the foetus goes on to maturity, it is really an addict when born. This addiction is continued if the mother should nurse the baby, as the poison is secreted in the milk. Certainly, this is not a promising outlook for a baby. It may be a generation before the full results of this are known. It is astonishing that any woman would knowingly do such a thing to her own baby. It may be well to note that most of these women are not the underprivileged, ground down by poverty and bad environment, whom we are advising not to have too many children. I believe that most of the women to whom I have given this information have desisted from smoking, at least during pregnancy and lactation.

A casual consideration of the conditions recalled here and many others which might be mentioned lead us to the unmistakable conclusion that there is much that is wrong which needs to be cured. Any real need may be partially relieved when its presence is recognized, but the real answer is education. The clinics which have been established under the direction and stimulation of the League have been most effective, but the most valuable feature of this activity is education. The Virginia League for Planned Parenthood has already done much to accomplish the purposes for which it was organized, but the future need is great. . . . "Where there is no vision, the people perish" (Proverbs, 29:18).

Medical Arts Building.

Rehabilitation of Europe's Victims Offers Study of War Edema.

An opportunity to study the problem of famine or war edema is afforded in the rehabilitation of European countries, *The Journal of the American Medical Association* observes in its May 19 issue. This edema is one of the results of starvation. It is manifested by excessive accumulation of fluid in tissues, with swelling usually in the legs and is widespread during war and famine. Until recently, *The Journal* says, biochemical and nutritional knowledge has been inadequate in determining a more specific cause than nutritional deficiency. The efficacy of high protein foods is generally acknowledged as causing the edema to disappear. The lowered serum proteins present in this disorder indicate a depletion of protein reserves of the body which must be restored before cure can be effected. *The Journal* points out that results so far in trying to relieve nutritional edema by administration of B complex vitamins are conflicting, and the preponderance of evidence points to the dominant role of protein in the causation of this type of edema.

Civilian Blood Donor Program by Red Cross.

The war has so strongly emphasized the vital place in medical practice of blood and its derivatives, that American Red Cross Chapters throughout the nation have been given permission to recruit blood donors for civilians. With the exception of the eleven metropolitan centers where the Red Cross is now recruiting donors for the Army and Navy, any Red Cross chapter may take part in operating a donor center for civilians, *sponsored by a recognized medical or health agency.* The blood collected and its derivatives produced will be made available without cost to physicians, hospitals, clinics and patients.

Further information with regard to this program may be obtained from the five Red Cross area offices, or from National Headquarters, Washington 13, D. C.

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INDICATIONS FOR TERMINATING PNEUMOTHORAX TREATMENTS*

ELIZABETH C. COLE, M.D.,
Norfolk, Virginia.

It is said that in pulmonary tuberculosis "pneumothorax is the treatment of choice but, if ineffectual, is more of a liability than an asset". And, may I add, that in the average case where collapse *is* effectual, if pneumothorax is continued too long, the physician becomes more of a liability to the patient than an asset.

Of the various methods of collapse therapy in use now, such as intrapleural pneumothorax, extrapleural pneumothorox, oleothorax, thoracoplasty, phrenic nerve operations, and pneumo-peritoneum, the simplest type and the first to be recommended in most cases is intrapleural pneumothorax. In any sanatorium a large percentage of its patients are given this method of treatment. This number may reach 65 per cent and higher. The very popularity of this method of collapse therapy does not mean that it is without hazards. It should not be pursued indefinitely in the uneventful cases, nor continued in those cases where the desired result is not being accomplished. The major desire on the part of the physician and the highest hope of the patient is ultimate cure. To accomplish this end pneumothorax must render the patient non-toxic, non-infectious, and at the end of the course of treatment there should be in use as much normally functioning lung tissue as could be expected after the healing of his particular type of lesion.

Any method of treatment of tuberculosis which has reached such a peak of popularity must, in most cases, be one which has proved successful in its end results—

1. By having the least number of hazards;
2. By shortening the tedious period of bed rest;
3. By rendering the patient non-infectious and non-toxic;
4. By healing the lesions satisfactorily with little discomfort.

With such results possible, intrapleural pneumothorax treatment is undertaken in suitable cases, keeping in mind that the individual patient stands alone in the problems he offers.

*Read before meeting of the Society of Chest Physicians of Virginia, at Richmond, May 29, 1944.

INDIVIDUAL FACTORS INFLUENCING TERMINATION

The length of the course of treatment of each patient will have to be determined by a number of individual factors which control the response to treatment. These factors are:

1. The type of lesion which appeared on x-ray films at the beginning of the treatment;
2. The individual type of collapse assumed by the lung and the time of complete or satisfactory collapse of the diseased area;
3. The date that all toxic symptoms disappeared;
4. The date of the last finding of tubercle bacilli in the sputum or gastric lavage;
5. A normal blood picture with a normal sedimentation rate is desirable;
6. A cooperative attitude on the part of the patient is important during treatment and also his economic status in so far as it controls his living conditions.

Considering the number and the variety of factors influencing the course of treatment, it is necessary to note their influence on the decision to terminate pneumothorax. We find that regardless of such a choice method of treatment that there are undesirable as well as desirable reasons which call for termination.

UNDESIRABLE REASONS FOR TERMINATING PNEUMOTHORAX

When undesirable reasons arise which render the further persuance of this procedure unwise because all signs point to the fact that proper results are not being attained, it is clearly indicated that pneumothorax treatments should be terminated. Among these undesirable reasons can be listed:

1. Sputum remains positive;
2. X-rays show pulmonary lesions insufficiently collapsed;
3. Toxic symptoms remain present.

There are also failures in treatment necessitating the termination of pneumothorax which are due to inadequate collapse of the diseased lung or complications arising in the course of treatment. Inadequate collapse may occur because of obliterative

pleuritis closing the air space or the presence of adhesions which are not suitable for treatment by pneumonolysis. In the case of obliterative pleuritis the termination of pneumothorax is involuntary but in the case of the adhesions, termination is voluntary and in favor of surgical treatment or prolonged bed-rest.

Reasons for terminating pneumothorax may be due to undesirable conditions which are caused by complications arising in the course of treatment, such as:

1. Contralateral spread of the disease in a patient not suitable for bilateral pneumothorax;
2. Persistent pleural effusion or empyema—either tuberculous or mixed infection;
3. Sudden abrupt re-expansion of the lung;
4. Spontaneous collapse of opposite lung;
5. Dyspnea due to the patient having cardiovascular insufficiency;
6. Failure of cavity to close, or continued enlargement of a cavity;
7. In some cases of endobronchial lesions where partial obstruction is taking place.

You will note that in all of the reasons given for undesirable causes for terminating pneumothorax it was impossible to foretell these happenings because they were only revealed by trial treatment and, therefore, they are possible even in the most carefully selected cases. Within this same group of cases may be emphasized, particularly in the ambulatory clinic patients, some of those who are behavior problems in that they cannot or will not cooperate fully. This results in infrequent refills causing premature re-expansion or inadequate collapse because of failure to accept supplementary treatment, such as thoracoscopy and thoracentesis. Often these cases are unsuitable for treatment outside of a sanatorium but have left the sanatorium against advice and refills are continued at the clinic with the hope of holding down some of the toxic symptoms and expectoration as a protection of those with whom they come in contact.

Requirements for Satisfactory Termination of Pneumothorax

Fortunately, the larger percentage of pneumothorax cases treated in sanatoria and passed on in good condition to the private physician or to the ambulatory pneumothorax clinic do follow a successful course of treatment and reach the time that termination of the pneumothorax treatment is warranted. The termination of pneumothorax should be carefully considered if the patient's condition fits the following requirements:

1. That sufficient time has elapsed for the healing of his particular type of pulmonary lesion. (There are a variety of opinions as to the time required for healing different stages of the disease. The individual response to treatment will, again, play a prominent part). It has been suggested that the time limit for treatment be two to three years if the lesion is light infiltration without cavity; at least four years if the lesion is heavy consolidation with or without walled-off cavities; and between four and six years if there is dense fibrocaseous disease or cavity with thick walls.
2. These stated periods of time must be measured from the date that:
   a. the last positive sputum was found or last gastric lavage was positive for tubercle bacilli;
   b. the chest x-ray showed effective collapse of the diseased area;
   c. the last toxic symptoms were present;
   d. complications were cleared up.

Therefore, each patient offers individual responses which influence the decision to terminate pneumothorax.

Method of Terminating Pneumothorax

The method of terminating pneumothorax is to give less frequent air refills; to fluoroscope patient often and re-x-ray whenever the lung has re-expanded to a degree that enables further study of the collapsed area of disease. Patients are advised as to a suitable rest schedule, proper exercise, and to keep a careful record of any recurrent symptoms. In some cases phrenic crushing is advised when the lung is re-expanded as a possible aid in preventing negative pressure symptoms with the tendency to effusion and shifting of the mediastinum. However, there may be some disagreement as to the advisability of this because paralysis of the diaphragm has a tendency to interfere with the emptying of the bronchial secretions that may accumulate.

In considering whether termination of pneumothorax treatments is advisable for certain patients of the lower economic status, rehabilitation programs are of great value in that they prepare these patients

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for suitable occupations which enable them to make a living without further endangering their health.

CHART I

Re-Expanded Pneumothorax (14 Cases from One of the Ambulatory Clinics, 1943-1944 Records—12 months)
Anti-Tuberculosis League Clinic—Norfolk, Va.

A. Voluntary re-expansion		5
Results: Good	4	
Poor	1	
B. Involuntary re-expansion		9
1. Premature re-expansion due to:		5
a. pleural effusion	3	
b. obliterative pleuritis	2	
2. Ineffectual collapse (surgery advised)		1
3. Bilateral uncontrolled disease (one thoracoplasty—dead)		2
4. Tuberculous empyema		1
Oleothorax followed by thoracoplasty (good result)		
C. Number with sputum converted		11

PNEUMOTHORAX TREATMENTS OVER AN INDEFINITE PERIOD

The question arises as to whether there are any cases which should be continued on pneumothorax indefinitely. We know that in certain elderly or debilitated individuals, whose disease is kept comfortably under control by pneumothorax treatments, and who have no chance of completely healed lesions, treatments should be continued indefinitely. Also those patients who are improved by this treatment, even though it may be inadequate for cure, and who are physically unable to undergo surgical treatment, should be continued on pneumothorax. These latter individuals may be those with a tendency to pulmonary hemorrhage or who have large cavities with fibroid walls, or those with spreading disease.

CHART II

Re-Expanded Pneumothorax (13 Private Cases)

A. Voluntary re-expansion		9
Results: good	9	
poor	0	
B. Involuntary re-expansion		4
Results: good	3	
poor	1	
1. Premature re-expansion due to obliterative pleuritis		2
a. lesion healed	1	
b. return of symptoms (readmitted to sanatorium)	1	
2. Ineffectual collapse		2
a. thoracoplasty—good results	2	
C. Complications		6
1. Small pocket of pleural fluid	4	
2. Dyspnoea—slight	2	
D. Type of lesions represented		
1. Infiltration		3
2. Fibrocaseous		2
3. Infiltration with cavity		8
E. Sputum converted		12
by pneumothorax	10	
by thoracoplasty	2	

Since the ultimate aim of artificial pneumothorax is toward eventual termination of all treatments with healed disease as a result, it behooves the physician who administers pneumothorax to keep uppermost in mind that he is not only administering treatments for a good purpose but that he is carrying out a form of treatment that predisposes to certain hazards. Of course, in some individual cases the physician will have to decide whether the hazards of terminating are greater than the hazards of continuing treatment. This decision will not so often be difficult if, while treatments are carried on, he keeps in mind the stage of the patient's progress and satisfactory response by using as a "measuring stick" those stated factors in each case which influence the decision to terminate pneumothorax, and noting the time that has elapsed since the date of effective treatment. If the patient is a suitable case, then re-expansion should not be delayed.

HAZARDS OF CONTINUING PNEUMOTHORAX INDEFINITELY

The physician should not overlook the fact that by continuing unnecessary treatments he may be causing the patient to face the possibility of certain recognized hazards, however remote he may consider them thus far. These hazards may be of three types:

1. The hazards which may arise during the actual giving of a treatment, such as air embolism, drug toxicity, spontaneous collapse of opposite lung, pleuro-pulmonary puncture, too high intrapleural pressures, and herniation through the mediastinum.
2. The hazards of complications arising during the course of treatment, such as: effusion, empyema, intercurrent disease rendering it unwise to continue treatments.
3. The hazards due to conditions which follow too prolonged treatments and which become apparent only during the re-expansion program, such as: the risk of an un-expandable lung due to:

1. Massive parenchymal fibrosis;
2. Bronchial stenosis;
3. Broncho-pleural fistula;
4. Visceral pleural thickening because of long standing pneumothorax or hydropneumothorax, with adhesions fastening the lung down;
5. Dangers connected with dead pleural space, such as pain, dyspnea, or circulatory hazard caused by displacement of mediastinal structures;
6. Bronchopleural fistula with empyema;
7. Atelectasis from bronchial stenosis which may be followed by bronchiectasis.

PATHOLOGY OF THE ARTIFICIALLY COLLAPSED LUNG

The recently reported results of post-mortem findings by Dr. Robert Charr and Dr. J. Woodrow Savacool[1] on cases with pneumothorax treatments over varying periods of time support the idea of the necessity of terminating these treatments in suitable cases and in those unsuited to this form of treatment within a reasonable length of time. A certain amount of irreparable damage may result from unnecessarily prolonged treatment. Their findings, namely, "pleural reaction, bronchial narrowing, vascular sclerosis and parenchymal changes noted in these cases were apparently the combined results of tuberculosis and collapse therapy". Also, so-called selective collapse appeared to them to be "essentially a phenomenon of atelectasis". Some showed cavitation had developed in the center of this collapsed lung. Others showed the main pulmonary artery, leading into the collapsed lung, had undergone thrombosis. These cases with thrombosis had had accompanying symptoms of spontaneous pneumothorax or of coronary artery occlusion. In another case the indications were that branches of the intercostal vessels apparently supplied the parietal portion of the adherent cavity walls and separation resulted in sloughing of the outer cavity wall when separated from its blood supply in the chest wall.

1. Collapsed Lung—Post-Mortem Findings. Robert Charr, M.D., and J. Woodrow Savacool, M.D., Diseases of the Chest **10**:2, 103, March-April, 1944.

Because of these pathological findings I feel that a greater amount of normal lung tissue is preserved when pneumothorax treatments are terminated within a reasonable period of time.

SUMMARY

Artificial intrapleural pneumothorax treatments have increased in popularity because of relative simplicity of the treatment and the usual good results that are obtained. Indications for terminating these treatments have been reviewed.

There are, in most cases, clear cut requirements to be met to determine the good progress of treatment, and in some cases certain complications are definitely against getting results by this method of treatment.

There are acceptable periods of time for the healing of the average case determined by the type of lesion present at the beginning of treatment and the date of effective collapse with disappearance of symptoms.

There are recognized hazards to giving treatments, and additional ones to continuing pneumothorax indefinitely. There are a few cases in which indefinite treatment is acceptable.

There are pathological changes as a combined result of collapse treatment plus the type of disease process present. There is reason to believe that most of these are less marked when treatment is terminated within a reasonable time after healing is believed to have taken place.

REFERENCES

Cake, C. P.: Indications for Terminating Artificial Pneumothorax. *Virginia Medical Monthly* **69**; October, 1942.

Carr, Duane: Hazards of Pneumothorax. Diseases of the Chest **10**:5, September-October, 1943.

Charr, R., and Savacool, J. W.: Collapsed Lung—Post-Mortem Findings. Diseases of the Chest **10**:2, 103, March-April, 1944.

Drolet, G. J.: Collapse Therapy. *American Review of Tuberculosis* **47**: February, 1943.

Stafford, Frank B.: The Indications for Terminating Artificial Pneumothorax. *American Review of Tuberculosis* **34**:402, 1936.

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XUM

FINDING EARLY TUBERCULOSIS*

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That the majority of tuberculous patients are moderately or far advanced when admitted to sanatoria for treatment, is a well accepted fact by all engaged in this specialty. This has been noted by the writer in several states where he has worked, regardless of their location and their organization to combat tuberculosis.

Earlier diagnosis is essential to lower the morbidity and mortality rates of tuberculosis, and to reduce the period of sanatorium treatment.

General medical practitioners are the front line troops in the fight against the great white plague, which, contrary to all propaganda, is still our worst killer of persons between the ages of 18 and 35. The general physician should always suspect its presence and utilize all diagnostic procedures available for each patient under observation.

This can be accomplished by annual surveys of high school children and their teachers, factory workers, employees in every line of business, and the professions, including all contacts exposed to active cases of the disease. The annual early diagnosis campaign of the National Tuberculosis Association also discovers numerous active cases throughout the nation.

X-RAY IS ESSENTIAL

X-ray of the chest is considered the most important factor in making an early diagnosis of pulmonary tuberculosis, regardless of the findings on physical examination. Each person suspected of having the disease should be x-rayed on the first visit to the physician's office or clinic. For this purpose the standard size 14x17 inch celluloid or paper films are considered more reliable than the 35 mm. or the 4x5 inch photofluorographs. However, if the microfilms are the only ones available, they should be used by all means.

X-RAY OF STUDENTS' CHESTS

All first-year high school students should be x-rayed as a routine precaution at that critical period of adolescence with the mental and physical strain of study, athletics, and social activities now considered so necessary to development.

All college students should be required to undergo a complete physical examination, including chest x-ray films, upon entering their freshman year, and repeated whenever necessary. Another complete examination, with chest x-ray, should be done just prior to graduation from college and beginning life's work in various occupations.

WRONG DIAGNOSES

This writer has been impressed by the number of new admissions to sanatoria with far advanced pulmonary tuberculosis who have been under treatment for months or years for so-called gastritis, enteritis, sinusitis, tonsillitis, laryngitis, bronchitis, asthma, otitis media, and recurrent attacks of pleurisy, grippe, or pneumonia.

Patients frequently give this experience in their histories, and quite a large percentage state that tuberculosis was not diagnosed until they went to a tuberculosis clinic or a hospital and were x-rayed as a routine procedure.

It would appear that all general practitioners and specialists in any medical or surgical field would at least be on the alert always to suspect the presence of tuberculosis in any of the conditions noted above, and determine definitely whether or not tuberculosis is the cause by having a chest x-ray, sputum examination for TB bacilli, etc., made on the first examination of the patient.

A diagnosis of pulmonary tuberculosis and any of its complications would greatly aid the physician and the patient in their efforts to plan a program of treatment and make all necessary family, business, economic, and financial arrangements which are so essential to the welfare of the sick person and his relatives.

INDICATIONS FOR CHEST X-RAY

Certain characteristics of tuberculosis must be kept in mind to appreciate the indications for chest x-ray, namely, that the disease at its onset is frequently without symptoms, that early lesions and some moderately advanced produce few or no abnormal physical signs, and that the extent and character of the

*Submitted for publication February 12, 1945.

lesions are often different from what would be expected from other studies of the case.

According to modern practice, therefore, x-ray examination is indicated in patients who present symptoms of the disease, and in certain healthy people who may be selected.

PATIENTS WITH SYMPTOMS

Since physical examination may be quite inadequate to reveal the pulmonary pathology, x-ray films of the chest should be made of anyone who presents suggestive symptoms. This includes patients with chronic cough, hemoptysis, pleurisy, and unexplained impairment of the general condition as indicated by loss of weight, undue fatigue, afternoon temperature of 99 to 99.6, and functional disturbances such as anorexia, nervousness, and indigestion.

Any extra-pulmonary tuberculous lesion always demands x-ray of the lungs as the source is usually found there. It is the usual experience that patients who report to a doctor because of symptoms of illness have moderately or far advanced pulmonary tuberculosis when x-rayed as a routine procedure.

APPARENTLY HEALTHY PEOPLE

About 1 per cent of apparently healthy people have shown tuberculous lesions when surveyed by x-ray. More than 80 per cent of these are in the minimal stage of the disease. The advantage of this is obvious. Certain groups of the population are usually selected for such surveys and include the following:

1. All volunteers and selectees for the armed forces of our country.
2. Persons who have been exposed to TB, such as hospital personnel, and all contacts with known cases of the disease.
3. Adolescent children and young adults who react to tuberculin, and those in contact with a tuberculous patient.
4. High school and college students, as they represent the age when active pulmonary tuberculosis often is first discovered.
5. Pregnant women as a part of the prenatal physical examination.
6. All industrial workers when first employed and annually thereafter.

HOME TREATMENT

Worthy of comment, also, is the rather frequent advice to tuberculous patients to "take the cure at home". This is, of course, almost impossible due to the activities of the family, inquiring neighbors and visitors, telephone and door bells ringing, etc. Moreover, no tuberculous patient with positive sputum should remain at home where he is a constant source of infection to his family and friends, in short, a public menace to the health of the community.

TUBERCULOSIS CONFERENCES

A plan, with the purpose of interesting general medical practitioners in the early diagnosis and treatment of tuberculosis in their patients, is worthy of trial in any community as it has been effective in several places and operates as follows:

Monthly clinical conferences are held in the Medical Society building to which all local medical practitioners are invited to bring the data of any patients who present difficulties in diagnosis and treatment, and in whom tuberculosis is suspected or definitely diagnosed.

Each conference is conducted as a round-table discussion, and the attending specialists who are present will render advice to the physician to help solve the problem his patient presents, after all data and findings have been considered by the various specialists on the panel.

This is considered one of the most promising developments in the campaign against tuberculosis in recent years, and it is hoped will serve as an incentive to other communities to increase the interest of general practitioners, for in their hands largely depends the ultimate solution of the tuberculosis problem throughout the United States.

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XUM

CASE REPORT OF MATERNAL DEATH

MATERNAL HEALTH COMMITTEE,
MEDICAL SOCIETY OF VIRGINIA

This twenty-nine-year-old colored woman was admitted to the hospital December 3, 1941, because of pregnancy, near term, not in labor, complicated by a severe toxemia (unclassified). L.M.P. April 8, 1941. At term January 15, 1942; G IV, P IV (one set of twins).

Present pregnancy was uneventful until two weeks before admission, when she started vomiting. She had had a bad cough after a cold for three weeks. This persisted and she developed dizziness and scotoma. She was in bed for a week before admission. On day before coming to the hospital her blood pressure was 190/130. There was 4 plus albumin in urine and oedema of legs. There had been no prenatal care.

Examination on admission revealed an obese colored female—weight 300 plus pounds, with uterine pregnancy near term. Not in labor, T. 98.6, P. 80, BP 254/160. No heart murmurs heard, and rate and rhythm were regular.

Laboratory studies showed 1-plus albumin and a few granular casts in a catheterized urine specimen. RBC 2,420,000; Hbg. 50 per cent; WBC 9,850; Uric Acid 6.2 and a total protein of 5.8. Kline was negative. Electrocardiogram revealed auricular extrasystoles and evidence of auricular damage; sclerosis of retinal arterioles present.

It was thought by medical consultant that patient had a hypertensive cardio-vascular disease rather than an acute toxemia and that pregnancy should be terminated.

Four days after admission her BP was 170/120. The membranes were not ruptured but were stripped from lower uterine segment and medical induction started. Two days later she delivered spontaneously a first twin as breech. The second was in a transverse presentation and was delivered by a version and extraction. Excessive bleeding followed this delivery, but checked after prompt manual removal of placenta.

Patient's postpartum course was satisfactory until fourth day when temperature was 102.6 and continued 102 and 103. Sulfathiazole started; four days later sulfathiazole level was 9, and NPN was 108 mgm. per cent, so sulfathiazole was stopped. Urine was clear. Aerobic and anaerobic blood cultures were negative. She died ten days postpartum. Permit for autopsy could not be obtained.

The cause of death is not clear, but it looks very much like a puerperal infection.

COMMENT

This case has been classified by the Committee as a preventable obstetrical death because of the absence of prenatal care, and no medical care until near term. The blood findings would have suggested transfusion early. Due to her hypertensive cardio-vascular disease, she should never have been allowed to become pregnant. It would have been well to sterilize her after her last pregnancy. If not, pregnancy should have been terminated as early as possible. It is entirely too dangerous for women with hypertensive cardio-vascular disease to have children.

Control of Rabies in Dogs.

Rabies in dogs can be controlled by quarantine and by immunization against the disease through a single injection of the vaccine, *The Journal of the American Medical Association* for April 28 reports. *The Journal* says that experiments now have established that the single injection of an antirabic vaccine produces a high degree of immunity in the dog.

"An effective program to control canine rabies," *The Journal* states, "must include quarantine to prevent the spread of the virus by stray dogs and dog traffic. There seems to be no question that canine rabies can be controlled by means of quarantine and vaccination. . . ."

PUBLIC HEALTH

I. C. RIGGIN, M.D.,
State Health Commissioner of Virginia

The report of the Bureau of Communicable Diseases of the State Department of Health for June, 1945, as compared with the same month in 1944, and for the period of January through June, 1945, compared with the same period in 1944, follows:

	June 1945	June 1944	Jan.-June 1945	Jan.-June 1944
Typhoid and Paratyphoid Fever	22	9	45	53
Diarrhea and Dysentery	562	638	1583	1535
Measles	116	946	1185	16655
Scarlet Fever	241	102	2542	1850
Diphtheria	16	13	133	117
Poliomyelitis	15	8	30	14
Meningitis	21	27	164	404
Undulant Fever	2	8	11	26
Rocky Mountain Spotted Fever	11	14	18	20
Tularemia	6	7	23	28

PROTEIN IN THE DIET DURING PREGNANCY AND LACTATION

It has been known for a long time that for growth protein is the most important of the food elements. Many studies have shown that an increase in the amount of protein is needed during pregnancy. Even though this is known, too often the pregnant woman does not get sufficient protein in the diet. Only during the past few years has it become customary for physicians caring for pregnant women to stress the importance of increasing the amount of protein during the pre-natal period.

In a study made in New Orleans of a group of 225 women, a "dangerously low intake" of protein was found. Their results showed a lower average hemoglobin and serum protein, a higher incidence of toxemia, a strikingly higher incidence of oedema, increased maternal morbidity, and increased fetal mortality on diets poor in protein. The authors state no definite conclusions can be drawn without further investigation. Studies at Harvard indicated that less than 75 grams of protein daily was likely to result in an infant most likely to receive a low pediatric rating.

In a recent article released by the associate in nutrition at the Harvard School of Public Health, it was stated that "if allowances of protein suggested for pregnancy by the National Research Council are to be met in the diet, there must be adequate education of women in regard to this nutrient. Nutrition histories reveal that the wife eats normally a diet supplying less protein than her husband or children. If, for economic reasons or other reasons, the family food supply is limited in such foods as milk, eggs, lean meats, she tends to give them to the other members of the family, and go without herself. Too frequently, she doesn't care for milk or eggs."

Physicians must continue to educate the general public that the commonly accepted belief of many years ago (that protein should be reduced) is erroneous. Every effort should be made to give correct advice to the pregnant and lactating woman to help her alter her food habits to conform to the newer knowledge of nutrition.

Bedside Dentistry in Army Hospitals.

A portable dental unit is being used in certain Army hospitals to assure bedridden patients more complete dental care and speed convalescence. Plans are now under way to standardize this unit for all Army general hospitals here. According to the Office of The Surgeon General this "dentist's office on wheels" carries equipment for a wide variety of dental operations from simple dental prophylaxis to treating fractured jaws and making complete new dentures.

A recent report on the portable dental unit at Kennedy General Hospital, Memphis, Tenn., lists 363 dental treatments given in one month to bed patients there.

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WOMAN'S AUXILIARY
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A Tribute to Our Doctors.*

May we do honor to our doctors; not because we are the wives of these men, but because we know as no one else the lives of service and quiet self-sacrifice that they lead. The physicians' oath is not an empty form and rare indeed is the man of this profession who does not consider himself as consecrated to his work as any priest or minister.

Many unsung heroes have died for the advancement of the science of medicine; many saints have walked this earth in the dress of the old family physician with his black bag out of which came everything from babies to solutions for family quarrels. Many such men are still among us today answering anxious calls at midnight or at dawn, never too tired, never too absorbed in their own affairs to respond to that age old cry: "Get the doctor."

We assume burdens of anxiety and worry over dangerously ill patients in our attempt to lighten the burden on the physician's shoulders and show him sympathetic interest. Although not mentioned nor implied in chronicles, the wife is the Mirror Goddess of the physician's life, reflecting and directing his earnest, humble effort to be serviceable to his fellowman which makes of every doctor a Great Man.

Florence Fisher Parry, of Pittsburgh, in paying tribute to the doctor says:

"Nothing can take his place—not priest nor minister, nor all the clinics that science can provide. There is a rapport and a confidence between him and his patient which has been able to accomplish miracles and restore to the breasts of mothers babies about to die; and to the arms of lovers, beloved turned back from Death. For there's something about the *Family Doctor* that casts out fear, meets apprehension, breaks down suspense, performs the simple miracle of Faith. We know how hard the life he has chosen. We know that he's abused, imposed upon and worn. His days are not his own and his nights are snatched and torn. What compensation is his? Oh, I think he is greatly repaid; greatly to be envied. His rewards are kingly prizes. The prize is WELCOME. That's a great reward. To have one's presence a blessing. To know that the mere sight of you brings heart's ease; stirs the wan pulse, brightens the fading eye. The prize of CONQUEST. All men like that. Winning against odds. To stay a fever; energize a pulse; throw breastworks against the advance of disease. Here, indeed, are paths of glory that do not lead to the grave but far from it. I cannot think of greater conquest. The prize of CONFIDENCE. That's a proud possession. Some priests know it; some ministers and friends, if they're time tried. But the *Family Doctor* is the final confessional, a refuge not only for repentant hearts but sick and craven hearts as well. The prize of HUMAN WISDOM that deep knowledge that comes from being continually exposed to the pitiful frailties of mankind. You do not deceive the *Family Doctor*; you do not attempt to. But knowing you, he is still compassionate; for he has learned to expect little greatness in his fellowman. Above all, I think I envy him his prize of SELFLESSNESS. He is free, for he has already given up his life, so has nothing left to fetter him. There is much talk of state control of medicine; and legislation dips its partial fingers into the sterile waters of our doctors seeking to arbitrate over their fields of mercy. I DARE SAY there are certain restricted fields of medicine in whose confines the legislative hand could work productively. But the ineffable value of the HUMAN TOUCH in medicine is something that transcends all legislation. What legislation indeed, what politics, what state control or organized social program can hope to substitute that HUMAN BOND that exists between the *Family Doctor* and his patient?"

GRACE E. THOMAS,
(MRS. DAVID W.)
President, Woman's Auxiliary to the A.M A.

*From Bull. Woman's Auxiliary to A.M.A.

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Appeal for Release of Medical Officers Not Needed by Armed Forces

THE shortage of doctors for civilian practice is becoming acute. People are having more and more difficulty in getting a doctor when they need one. It is not a question of money, for the wealthy are having as much trouble in this respect as anybody. They are using their positions on hospital boards in efforts to find a doctor who has time to pay a house call. That the situation will become worse stands to reason. At the beginning of the war the old and the physically handicapped physicians were left for civilian practice. Naturally they are dying off or wearing out. There have been practically no replacements.

In this connection the action of the Executive Committee of the Indiana State Medical Association is timely and important. News of this action came as the July MONTHLY was going to press. We managed to make room for quoting a few paragraphs. We think it so important that we are now publishing the full report. If the word "Virginia" be substituted for "Indiana", the resolution would be equally true, except that the Council of the Medical Society of Virginia has had no meeting as yet.

"Now that V-E Day is passed and we are expecting the release from service of part of our Armed Forces, immediate consideration should be given to the release of as many of the doctors as is consistent with the best interest of the Armed Forces and of the civilian population. Promptness in reducing the size of the Medical Corps should be the positive aim of everyone having responsibility in this field. There should never be a time when any doctor is being kept in the military service with nothing for him to do professionally in connection with his military status. He should not be kept in the service to do things which could as well be done by those not trained as physicians. Many persons have delayed obtaining the medical care they should have had until their regular physicians get back from the war.

"The doctors in the service have written a glorious chapter in the history of Ameri-

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can medicine. We point with particular pride to the record of the Indiana physicians who volunteered. Indiana was among the first states to fill its quota of medical officers. It never has lagged in filling any additional demands made upon the profession by the military authorities. The outstanding service rendered by these medical officers has merited rewards in every combat area where American troops have served and are serving. The Army, Navy, and Air Force should not incur the criticism of the public or of the physicians in those services by holding any physician in military service a day longer than the interest of the country requires.

"The medical profession of Indiana was determined at the outbreak of the war that no one in the Armed Services of the United States should ever lack medical care, no matter how urgent and severe an emergency the Armed Forces might be called upon to face. Some of the public may have felt that this obligation of medicine to the Armed Forces was over-emphasized, to the disadvantage of the civilian population. A severe epidemic would have presented a real medical problem, and it is fortunate that this has not occurred, for many doctors who did not enter the service have carried professional burdens beyond their strength.

"The Executive Committee of the Indiana State Medical Association urges that those in authority look upon the early and prompt release of physicians, when they can be spared, as a matter of the utmost urgency and importance—and when we say 'when they can be spared', we must be understood to mean that every soldier, sailor, marine, nurse, WAC, WAVE, or SPAR, or anyone else who needs medical care in connection with military services will have it, even without the physicians who are to be dismissed. But after all the Armed Services are taken care of, any delay in releasing a physician should be avoided as an injustice to the public, an unnecessary burden on the treasury, a source of criticism of those in authority, and unfair treatment of the physician who is serving his country."

A New Hospital for Richmond

AS the result of a letter that Dr. W. W. Rixey wrote to the *Times Dispatch* last winter about the need of additional modern hospital facilities, and the discussion it provoked, the Richmond Community Council undertook a survey of Richmond's hospitals. For this survey the Council was fortunate in securing the services of Dr. Robin C. Buerki, Dean of the Graduate School of Medicine of the University of Pennsylvania. Dr. Buerki is an outstanding authority on hospitals. His report, which was made public on July 11, is interesting reading for Virginia doctors. He finds that Richmond needs at least 500 additional beds and recommends that a new community hospital be erected on a site that will allow for future expansion and for ample parking space. He suggested that the Richmond Community Hospital, an all negro hospital built in 1934, be closed provided that 75 to 100 beds in the proposed new hospital be set aside for negroes and be open to properly qualified negro physicians. He further suggested that the hospital at the City Home, the Retreat for the Sick, and the Sheltering Arms Hospital be urged to join in the plan. From a practical point of view the report is a very sensible one. It would provide for the immediate and future hospital needs of Richmond, with a hospital of a size that favors efficient and economic operation. The Richmond Community Hospital has never been able to have an intern, and for some time the securing of interns for the other hospitals mentioned, has been a perennial problem.

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On the other hand, the Retreat for the Sick and the Sheltering Arms Hospital have served the sick of Richmond and Virginia for years and have rightfully earned a place in the affections of the people. The Retreat for the Sick was founded in 1877 as an emergency to provide teaching facilities for the Medical College of Virginia. On account of faculty squabbles in the last quarter of the nineteenth century, it was turned out of its first home and later was deserted by its chief sponsor. In spite of all this it continued to grow, which is the best evidence that it filled a need. The Sheltering Arms Hospital was founded by Miss Rebekah Peterkin in 1889 as a nonsectarian institution for needy white people of Virginia. It is said to be the only absolutely free hospital this side of New Orleans. Miss Peterkin's spirit still permeates the institution like a benediction. The patients feel it and are benefited thereby and the doctors who work there deem it a great privilege, as indeed it is.

It would be a pity for these splendid old institutions to lose their identity. Sentiment has some place in our lives, and when the rich people of Richmond die they need a worthy institution to name in their wills. The Sheltering Arms Hospital seemingly meets this need. Some way should be worked out for these old institutions to take part in this new project without losing their identity. It was done in New York by the Medical Center of Columbia University and the Cornell Medical Center and no doubt it could be done in Richmond. In that case the practical needs of Richmond could be met without a sacrifice of sentiment.

Beverley Randolph Tucker, 1874-1945

IN the death of Dr. Tucker, June 19, 1945, the Medical Society of Virginia lost a distinguished and valuable member. He was a regular attendant of the annual meetings and added to the value of the programs with both papers and discussions. Besides, he was a frequent contributor to the MONTHLY. His first contribution was a paper on *Tabes* in November 1907 and his last was a guest editorial on *The Shortage of Trained Nurses,* February 1945. He served on the memorable Historical Committee and was for a number of years a member of the Publication and Program Committee.

Dr. Tucker came of a family whose members have added much to the cultural life of Virginia since his great great grandfather, Judge St. George Tucker, came to this country from Bermuda before the Revolutionary War. His father, John Randolph Tucker, died of typhoid fever at the age of thirty-two, when Beverley was six years old. About this time he began what he called his changeable school career; this started in the public schools of Washington and ended at the Virginia Military Institute twelve years later. Part of this time he went to the Central Public School in Jefferson Davis' old mansion opposite the MONTHLY'S office. He was a poor scholar and frequently failed in his classes.

After leaving V.M.I., he tried various ways of making a living, and it was rather late in life that he turned to medicine. He graduated M.D. at the Medical College of Virginia in 1905 when he was thirty-one years of age, but he did not really find himself until he came under the influence of Dr. Weir Mitchell, under whom he served as an interne in Philadelphia. Later he became his assistant in the clinic. That this influence was a profound one is shown by the fact that he named his first-born son after Dr. Mitchell, and in 1914 he wrote a beautiful little "Appreciation" of Dr. S.

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Weir Mitchell, which he published. From that time on Dr. Tucker was no longer interested in making a living, but in Medicine. This interest was further intensified when he came under the influence of Sir James Purves-Stewart in Middlesex Hospital in London.

After post-graduate studies in Europe, which at that time was considered necessary as a "topping off" of a medical education, Dr. Tucker in 1907, settled in Richmond. He was made adjunct professor at the Medical College of Virginia and established the out-patient clinic in nervous diseases. He was soon looked upon as the pioneer neuropsychiatrist of the South. In 1912 a professorship in neurology and psychiatry was created for him at the Medical College of Virginia. Several attractive offers came to him to move to New York and to Philadelphia but, except for delivering a course of lectures in San Francisco at the Cooper Medical School, and attending several international congresses, he stuck steadfastly to the course that he had mapped out for himself in Richmond. In 1915 he established the Tucker Sanatorium. His work in his field, especially in pituitary gland disturbances and in encephalitis, was outstanding and received wide recognition.

He was, besides, a good citizen and was interested in the welfare of Richmond and the State of Virginia. He was a member of the State Board of Health and the chairman of its executive committee. He helped to found the Children's Memorial Clinic and served on its board for years. He was the first physician to the Juvenile Court of Richmond, and was also a member of the board of the Virginia Industrial Home for Girls. He was chairman of the first Governor's Mental Advisory Board of the Virginia State Penitentiary, and was consulting physician to the State Colony for Feebleminded and Epileptic. He was a charter member of the Country Club of Virginia, a member of the Commonwealth Club, the Richmond German Club, the Virginia Poetry Society, and the Writer's Club of Virginia. He was vice-chairman of the Poe Shrine of Richmond, and vice-chairman and later chairman of the City Library Board. He was president of the Westmoreland Club in 1924 and of the Society of the Cincinnati of the State of Virginia in 1933 and 1934. He was president of the Seaboard Air Line Medical Association in 1937 and of the Atlantic Coast Line Surgeons' Association in 1939. He was president of the Tri-State Medical Association of Virginia and the Carolinas in 1931, of the Mental Hygiene Society of Virginia in 1937, and of the Richmond Academy of Medicine in 1942-43. His other medical societies were American College of Physicians, American Neurological Association, Southern Medical Association (Chairman of the Neurological Section in 1925) American Medical Association, Virginia Academy of Science, Nervous and Mental Research Association, and Pan-American Medical Association. He was a diplomate of the American Board of Neuropsychiatry, and a member of the board of the American Hospital of Paris and of the Alfred I. du Pont Institute for Handicapped Children in Wilmington, Delaware.

His publications also show his varied talents. For six years he was editor of the *Old Dominion Journal of Medicine and Surgery.* In 1914 he published a brief biography of Dr. S. Weir Mitchell. *Nervous Children* appeared in 1916. In 1919 he wrote the section on cranial nerves and their diseases for "Tice's System of Medicine". *Verses of Virginia* appeared in 1923; *The Lost Lenore,* a one-act play, in 1928; *The Gift of Genius* in 1930; *Adolescence* in 1932; *Narna Darrell,* an historical novel, in 1936; *Various Verses* in 1938; and *Tales of the Tuckers* in 1942. In 1926

Dr. Tucker delivered the fifth Bedford Lecture in Pittsburgh, the title being "The Physician's Contribution to Literature". He wrote and read the Phi Beta Kappa poem, "Anastasis", for William and Mary College in 1933. Besides some 68 medical articles, he wrote sketches of George Ben Johnston, William H. Taylor, James N. Ellis (Ellis' work at the Vienna Clinic) Charles Eduard Brown-Sequard, and Sir James Purves-Stewart.

That Dr. Tucker accomplished so much in so many fields is remarkable One who wrote a poem to be read at his own grave and a treatise on genius surely could not complain if his friends tried to find wherein his genius lay. In the first place he came of a remarkable family, and in the second place he had a native wit. These lay dormant in Dr. Tucker until several great teachers fired his imagination. It was then merely a matter of time. Someone has said, in discussing the relative merits of heredity and environment, that not even the greatest artist could paint a masterpiece on a mud bank and a duffer could ruin the finest canvas and oils. In Dr. Tucker's case the raw material was of the finest and was subjected to the best influences; the result was a masterpiece—a rare combination of practical realism and poetic idealism. One of his maxims was: "If you have an enemy, ignore him." He reasoned that every knock might be a boost. He lived strictly by this maxim. He may have had enemies, but you never heard anything about them from "Bev". Of friends he had an abundance, and he took great delight in boosting them in every way.

FOR BEVERLEY R. TUCKER, M.D.

In memoriam cum amore

Now, turned from deathly Hollywood,
We know you are not there,
Though tall the brooding monuments,
Though soft the conquered air.
We know you are not there.

The mind assays a nobler thought,
Transcends its burdened fear;
A wiser kindness wings the heart,
A song—besought—is clear.
For you are near.

But if less winsome smiles the earth,
Inconstant fades a star,
It is that loyal grace and light
With you are vanished far,
Dwell only where you are.

—Anne Page Johns.

Floral Eponym (29)

PAEONIA. PEONY. PINEY. PAEONY
APOLLO OR PAEAN.

These beautiful and showy spring flowers are named for the mythical physician Paeon. At least this is what Bailey says. Garrison on the other hand says that the physician was named for the flower. The chief god of healing in the Greek Pantheon was Apollo, commonly called Alexikakos (the averter of ills). "He was also the god of purity and well being in youth, and, as Homer relates, the physician to the Olympain gods, whose wounds or diseases he cured by means of the root of the peony, hence his name 'Paean', and the epithet 'sons of Paean' as applied to physicians." (Garrison.)

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News

The New Dispensary at the U. S. Naval Mine Depot,

Yorktown, was dedicated on July 15. It is a very modern 100-bed hospital, with all the diagnostic facilities of the average civilian hospital. The building is of a one story design, built in the shape of the cross of Lorraine. One complete wing is air conditioned and is completely equipped as an operating pavilion, with two operating rooms. In addition to the facilities for sick call, out-patient clinic, x-ray, physiotherapy, laboratory, diet kitchen, pharmacy, and dental offices, there are two large 36-bed wards for enlisted personnel. Adjoining each ward there are two quiet rooms and an office for the ward physician. One wing with eight rooms and connecting baths, with an adjoining solarium, is used for sick officers. The total cost of the dispensary was $350,000.00. Captain Toson O. Summers, (MC), USN, MCV-'17, was responsible not only for the design of the hospital, but, also for its acceptance and approval by the Bureau of Medicine and Surgery.

The dedicatory service was attended by a large number of physicians located in the Tidewater area —civilian as well as those in service.

In addition to the address of welcome by Captain Summers, short addresses were presented by the Commanding Officer, Capt. R. D. Kirkpatrick, USN (Ret.) and by Capt. Ivan Bickelhaupt, Civil Engineering Corps, USNR. The dedicatory address was to be delivered by Rear Admiral Luther Sheldon, (MC), USN, but unfortunately he was unable to participate in the ceremonies because of illness. Capt. John Huff, (MC), USN, Assistant District Medical Officer, read Admiral Sheldon's dedicatory address. The dedicatory prayer was offered by Capt. W. H. Rafferty, Chaplain Corps, USN.

After the addresses, the Commanding Officer ordered the hoisting of the Geneva Red Cross and thus placed the dispensary in commission.

Captain Summers has completed his tour of duty at Yorktown and has recently been ordered to the Norfolk Navy Yard, Portsmouth, Va. He is being relieved by Captain George B. Tyler, (MC), USN, MCV-'14.

News of Doctors in Service.

Lieutenant Colonel Staige D. Blackford, MC, of Charlottesville, Va., is now Chief of the Medical Service at Valley Forge General Hospital, Phoenixville, Pa. He succeeds Lieutenant Colonel Maurice A. Schitker, MC, of Toledo, O., who has left for an overseas assignment. Colonel Blackford recently returned to this country after 30 months' service as Chief of the Medical Service of the 8th Evacuation Hospital in North Africa and Italy. He was awarded the Legion of Merit for his work with that hospital. A graduate of the Department of Medicine, University of Virginia, he was Associate Professor of Internal Medicine at the University when he entered the Army.

Captain A. M. Jacobson, who was practicing in Roanoke at the time of entering the Service, and was overseas with the 305th General Hospital, was graduated on June 30 from the Army's School of Military Neuropsychiatry, held at Mason General Hospital, Brentwood, N. Y.

The following promotions have recently been noted for Virginia doctors:

To *Commander*:

Dr. Marshall P. Gordon, Richmond.

To *Major*:

Dr. Reid White iv, Lexington.

Dr. Allen W. Pepple, Richmond.

Dr. Joseph Ney, Harrisonburg.

James River Medical Society.

Dr. O. L. Huffman of Arvonia, automatically became president of this Society upon the death of Dr. T. L. Driscoll. The secretary is Dr. Garland Dyches of Dillwyn.

Amelia County Medical Society.

The following are officers of this society for the ensuing year: President and secretary, Dr. James L. Hamner, Mannboro; and vice-president, Dr. G. A. Arhart, Amelia.

Married.

Dr. Randolph Harrison Hoge, Richmond, and Miss Florence Irene Elks, Weldon, N. C., June 23.

Dr. Harvey Ray St. Clair and Miss Pauline Carroll Keller, both of Staunton, June 23. Dr. St.

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Clair graduated from the Medical College of Virginia this year, and is now interning at the U. S. Marine Hospital, New Orleans.

Dr. Oscar Orton Smith, Medical College Hospital, Richmond, and Miss Ann Christian Hunt, also of Richmond, July 7.

Dr. Robert Saul Salisbury, Richmond, class of December '43, Medical College of Virginia, and Miss Muriel Arline Cole, of New York City, June 15.

Dr. Lewis George Richards, Jr., Roanoke, of the June class, University of Virginia Department of Medicine, and Miss Dorothy Nelle Quinn of Lynchburg, June 23. Dr. Richards is now interning at St. Luke's Hospital, New York City.

Dr. Lucius Davis Hill, III, San Antonio, Texas, who has been serving an internship at the University Hospital, Charlottesville, and Miss Torrance Reed Rinehart, of that city, June 23.

Dr. Walter Cleveland Fitzgerald, class of December '43, University of Virginia, and Miss Martha Ann BonDurant of Princeton, W. Va., July 1. Dr. Fitzgerald is now in the Army Medical Corps and stationed at Carlisle Barracks, Pa.

Councilor-Elect from Virginia to S.M.A.

Dr. T. Dewey Davis, Richmond, has been appointed a member of the Council of the Southern Medical Association for Virginia for a regular Council term of five years, beginning at the close of the annual meeting in November, the appointment having been announced recently by the President-Elect, Dr. M. Y. Dabney, Birmingham, Alabama. Dr. Davis succeeds Dr. Thomas W. Murrell, Richmond, whose term will expire at the close of the annual meeting in November and who, having served the constitutional limit, is not eligible for reappointment.

Other Councilors-Elect named by Dr. Dabney to take office at close of the annual meeting of the Southern Medical in November are:

For Florida—Dr. William C. Thomas, Gainesville;

For South Carolina—Dr. W. L. Pressly, Due West;

For Texas—Dr. Walter G. Stuck, San Antonio.

Medical College of Virginia News.

Faculty promotions, July 1, 1945, in the School of Medicine are as follows:

Department of Medicine:

Dr. George H. L. Dillard from assistant in to instructor in medicine.

Dr. G. Watson James, III, from assistant in to instructor in medicine.

Department of Neuropsychiatry:

Dr. George Fishburn from assistant in to instructor in neuropsychiatry.

Department of Neurological Surgery:

Dr. A. C. Johnson from assistant in to instructor in neurological surgery.

Department of Obstetrics:

Dr. John R. Saunders from assistant in to instructor in obstetrics.

Department of Ophthalmology:

Dr. DuPont Guerry, III, from instructor in to associate in ophthalmology.

Dr. Edgar Childrey from associate in to assistant professor of ophthalmology.

Department of Otology, Rhinology, and Laryngology:

Dr. Thomas E. Hughes from associate in to associate professor of otology, rhinology, and laryngology.

Dr. E. L. Mrkvioka from assistant in to instructor in ophthalmology, otology, rhinology, and laryngology.

Department of Pathology:

Miss M. Katharine Cary from assistant to instructor in pathology.

Department of Pediatrics:

Dr. Thomas S. Chalkley from instructor in to associate in pediatrics.

Dr. Edwin L. Kendig from instructor in to associate in pediatrics.

Dr. Sarah Hoover Jones from assistant in to instructor in pediatrics.

Department of Preventive Medicine:

Dr. J. B. Porterfield from instructor in preventive and industrial medicine to assistant professor of preventive and industrial medicine.

Schering Corporation Appoints New Sales and Promotion Heads.

Schering Corporation, manufacturers of endocrine and pharmaceutical preparations, having offices in Bloomfield and plants in Bloomfield and Union, New Jersey, has appointed Dr. John N. McDonnell to the newly created post of Director of Domestic

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Sales and Promotion of that company, succeeding Mr. Arthur F. Peterson, Manager of Domestic Sales Division, who has resigned. Mr. Herman W. Leitzow, eastern division manager since 1944, has been made assistant to Dr. McDonnell. Mr. George C. Straayer, manager of the professional service division, will continue in that post and in addition will devote part of his time to the development of field operations for Schering.

New Health Officer in Southwest Virginia.

Dr. Charles Preston Pope of Aiken, South Carolina, has been appointed Health Officer of the Pulaski-Wythe Health District, effective August 1.

Information Bulletin for Medical Officers.

The Bureau of Information of the American Medical Association has prepared a bulletin available to all physicians returning from the armed services, which gives a concise statement of facilities now available to help them with their problems of licensure, further education, or location. Copy may be had free upon application to the Bureau of Information, A.M.A., 535 North Dearborn Street, Chicago 10, Illinois.

Jefferson Medical College.

The 121st Annual Commencement was held on June 22, the Commencement address being delivered by H. W. Prentis, Jr., President of the Armstrong Cork Company, on "The R's of Professional Education".

The present graduating class of 152 members brings the total anumber of graduates up to 17,507. The members of the graduating class were registered from twenty-two different states and two insular possessions.

Ninety-five members of the graduating class received First Lieutenant M.C., A.U.S. Temporary Commissions, and four received First Lieutenant, Med. Res. Corps Commissions. The commissions were received after completing the requirements of the Army Specialized Training Program.

Forty-one members of the graduating class received Lieutenant (jg) M.C., U.S.N.R. commissions, and nineteen of this group went on active duty as U.S. Naval interns.

The Annual Alumni Dinner was not held, in compliance with the Office of Defense Transportation regulations.

Anniversary of the Army Medical Department.

The Army Medical Department celebrated its 170th anniversary on July 27 with the realization that it has grown into the largest organization of the kind ever known and that it is giving this nation's army the best medical care that soldiers have ever received.

From its inception in 1775 shortly after General George Washington became Commander-in-Chief of the Continental Army until the present day, the Army Medical Department has made steady progress in military medicine; it has made scientific discoveries that have benefited all of mankind; but never has its progress in both of these categories been so rapid as in recent years.

The Honorable Robert P. Patterson, Under Secretary of War, recently cited the Army's record of saving nearly 97 of every 100 wounded soldiers who reach Army Hospitals, the disease rate of less than one in one thousand, and similarly startling figures with reference to malaria, the dysenteries, and other diseases, showing that the Medical Department has established effective control on all disease fronts.

Dr. Brock D. Jones,

Norfolk, has accepted a residency in gynecology and obstetrics at Philadelphia Lying-In Hospital, beginning July 1, and will be there approximately eighteen months.

Dr. Charles H. Henderson,

Of Norton, was granted the certificate of the American Board of Ophthalmology at the meeting of the Board in New York in June 1945.

Dr. George S. Row,

Recently connected with the staff of Pine Camp Hospital, Richmond, moved to Bridgewater the first of July, and is engaged in general practice there.

The Leslie Dana Gold Medal,

Awarded annually for outstanding achievements in the prevention of blindness and the conservation of vision, will be presented this year to Dr. William Zentmayer of Philadelphia, according to announcement by the National Society for the Prevention of Blindness.

Dr. Zentmayer was selected for this honor by the St. Louis Society for the Blind, through which the

medal is offered by Mr. Leslie Dana of that city. Despite his 80 years, Dr. Zentmayer is in active practice as an ophthalmologist. He is Professor Emeritus of Diseases of the Eye, Graduate School of Medicine, University of Pennsylvania, and consulting surgeon to Wills (Eye) Hospital, St. Mary's Hospital and Glen Mills School, all in Philadelphia. He received his M.D. degree from the University of Pennsylvania School of Medicine in 1886.

Dr. Randolph P. Pillow,

After a year's internship at The Mason Clinic, Seattle, Washington, is now at the University of Virginia Hospital, Charlottesville.

Physician Wanted:

Physician for industrial dispensary in South. Must be graduate Class A school. Please write details and give references in first letter. Expenses of interview will be arranged for satisfactory applicants. Write to Medical Director, Box 590, Knoxville 5, Tennessee. (*Adv.*)

For Sale:

Urological X-Ray Table. Young-McKin-Smith with Liebel-Flarsheim Bucky Diaphragm. Can be seen at 1-D East Grace Street, Richmond, Va. (*Adv.*)

Wanted:

One qualified to act as Superintendent of Hospital and Nurses Training School at the Petersburg Hospital. Please send application, including qualifications, to Mr. J. Gordon Bohannon, Petersburg, Virginia. (*Adv.*)

Obituaries

Dr. Osbourne O. Ashworth,

Widely known physician of Richmond, died unexpectedly on the evening of July 5 in Gloucester County, where he had gone for a short vacation. He was stricken with a heart attack and died a few minutes later. Dr. Ashworth was born on August 2, 1895, at Asheboro, N. C., but came to Richmond at an early age. Upon completion of his course at the University of Richmond, he studied medicine at the Medical College of Virginia, graduating from that institution in 1921. He interned at St. Elizabeth's Hospital, Richmond, and entered private practice in July 1923. At the time of his death he was on the staff of Stuart Circle Hospital. He was a member of numerous medical organizations, having joined the Medical Society of Virginia in 1924. His wife and two sons and a large family connection survive him.

Dr. Robert Edward Whitehead,

Prominent physician of Princess Anne County, died in a Norfolk hospital on July 2, aged seventy-two years. He graduated from the Medical College of Virginia in 1897, and had practiced general medicine in Princess Anne County for forty-eight years. He was a Mason, chairman of the County School Board for a number of years, president of his local medical society for several terms, and was for sometime active in the work of the Medical Society of Virginia, in which he held membership since 1897. Dr. Whitehead was also a member of several other organizations. He is survived by his wife and seven children.

Dr. Thomas Garrett Pretlow,

Well known physician and for thirty years coroner of Chesterfield County, died July 8, at his home in Chester. He was a native of Southampton County and sixty-six years of age. Dr. Pretlow studied medicine at the former University College of Medicine, Richmond, from which he graduated in 1903. He then practiced for several years in Richmond before locating at Chester. He was a Mason, active in church work, and chairman of the Chesterfield Board of Health for many years. He had been a member of the Medical Society of Virginia since 1904. Dr. Pretlow is survived by his second wife and four children, one of them Dr. William R. Pretlow of Warrenton.

Dr. William Read Martin,

Of Charlotte, C. H., died June 24, after a short illness. He was born in Charlotte County sixty-two years ago, and studied medicine at the former University College of Medicine, Richmond, from which he graduated in 1907. He joined the Medi-

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cal Society of Virginia the following year. Following graduation, Dr. Martin practiced for a time in Bedford and Rockbridge Counties, before returning to Charlotte where he had practiced for over thirty years. He had been health officer for his county for the past four years, was a former president of the South Piedmont Medical Society, and had been an officer in his county medical organization most of the time since its organization. His wife and a daughter survive him.

Dr. George Craig Eggleston,

The following resolutions were adopted by the Amelia County Medical Society on the death of Dr. Eggleston, June 29, 1945:

WHEREAS it has pleased Almighty God to remove from our midst Dr. George Craig Eggleston, senior member of our society and for many years an outstanding and greatly beloved physician of our county, BE IT RESOLVED:

First: That in his death we have lost a valuable and beloved citizen, a wise counselor, a kindly man and a dear friend as well as an able and distinguished physician;

Second: With his magnetic personality, his rare gift of humorous expression and his wisdom, acquired through long and wide experience, he was a dominant figure among the members of his profession who regret his passing and will miss his willing and able consultations, and his genial spirit;

Third: That a copy of these resolutions be sent to Dr. Eggleston's family, to the VIRGINIA MEDICAL MONTHLY, to the local paper, and a copy recorded with the minutes of this meeting.

JAMES L. HAMNER, *Secretary,*
Amelia County Medical Society.

Dr. John Cameron McCluer, Jr.,

Prominent physician of Alexandria, died June 26, at thirty-nine years of age. He was a native of Parkersburg, W. Va., and a graduate of the University of Virginia Department of Medicine in 1932. Dr. McCluer was engaged in general practice in Alexandria since 1934. He is survived by his mother and a sister.

"The Alexandria Medical Society deeply regrets the loss of their fellow member, Dr. J. Cameron McCluer.

"We wish to extend to his bereaved family our deepest sympathy and to express to them our sincere appreciation of Dr. McCluer as a fellow practitioner and friend.

"We, the members of the Alexandria Medical Society, resolve that this resolution be sent to his family, the *Alexandria Gazette,* and the VIRGINIA MEDICAL MONTHLY."

Signed:
L. FLOYD HOBBS, *President*
JAMES A. GOOCH
C. E. ARNETTE

Dr. Leroy Lee Sawyer,

A prominent physician of Great Bridge, died June 13 at the age of eighty-two. He graduated from the University of Maryland School of Medicine, Baltimore, in 1890, and was actively engaged in the practice of medicine at the time of his death. He was a member of the Board of Directors of the Merchants and Planters Bank, of the Norfolk County Medical Society and a charter member of the Seaboard Medical Society. He is survived by his wife, a son, Dr. Leroy Lee Sawyer, Jr., of Washington, D. C., a daughter, and three grandchildren.

Dr. Samuel Addison Reynolds

Died at his home at Vashti in Pittsylvania County, July 8, aged eighty-one years. He graduated from the Medical College of Virginia in 1887 and practiced for over half a century in Pittsylvania and Franklin Counties, retiring to work on his farm only a few years ago. He had been a member of the Medical Society of Virginia since 1901, was a Mason, and had been active in politics. A sister survives him.

Dr. Ulpian Henry Johnson,

Who for forty years practiced his profession in New Kent and King William Counties, died at a Richmond hospital on July 11. He was sixty-eight years of age and had graduated in medicine from the Medical College of Virginia in 1905. His wife and two sons survive him.

Dr. Walter Edward Bundy,

Oak Hill, W. Va., died June 4 of heart disease, at the age of sixty-one. He was a native of Southwest Virginia and graduated from the former University College of Medicine, Richmond, in 1908. Dr. Bundy was a member of his State and the American Medical Associations and, at the time of his death, was president of the Fayette County (W. Va.) Medical Society. His wife and several children survive him.

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